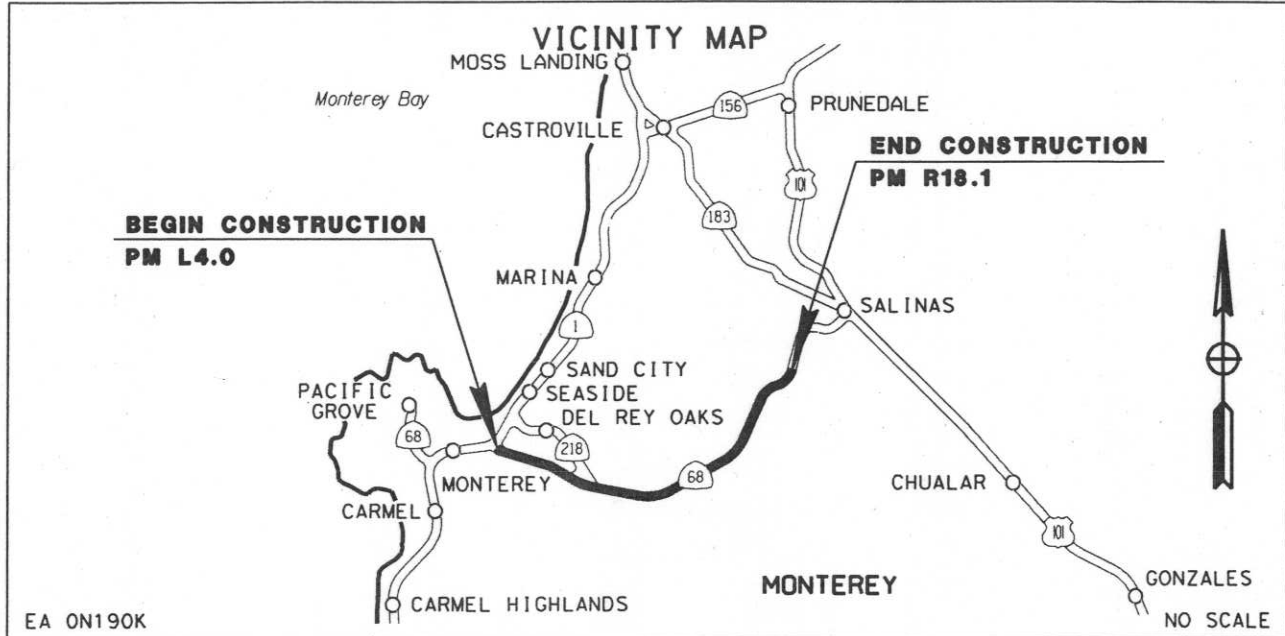


PROJECT STUDY REPORT



ON ROUTE 68 IN MONTEREY COUNTY
BETWEEN THE 1/68 NORTH JUNCTION (PM L4.0)
AND SPRECKELS BOULEVARD (PM R18.1)

APPROVAL RECOMMENDED:

Sgt Edm for Doug Hessing
DOUG HESSING, PROJECT MANAGER

APPROVED:

R. Gregg Albright
R. GREGG ALBRIGHT, DISTRICT DIRECTOR
DISTRICT 5

9/9/05
DATE

PROJECT SCOPE & TECHNICAL DATA VALID THROUGH

9/9/08
DATE

COST AND WORK PLAN MUST BE UPDATED PRIOR TO USE FOR PROGRAMMING

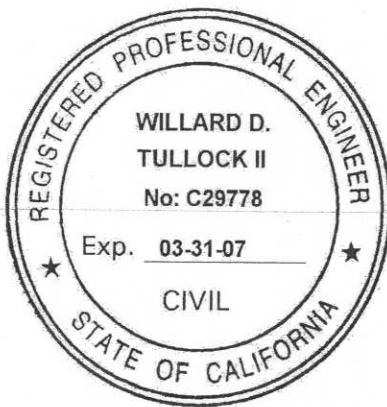
05-MON-101 (PM 82.0/101.3)
EA # 05-0N200K
HB4N (20.10.201.315)
August 2005

This Project Study Report has been prepared under the direction of the following Registered Civil Engineer. The registered Civil Engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

Willard

REGISTERED CIVIL ENGINEER

8/19/05
DATE



PROJECT STUDY REPORT

1. Introduction

This project proposes to install Traffic Management System (TMS) elements along Route 68 in Monterey County between PM L4.0 and PM R18.1. The elements include Vehicle Detection Stations (VDS), Mainline Detection Stations (MDS), Closed Circuit Television Systems (CCTV), and Extinguishable Message Signs (EMS).

To maximize the ability to secure funding for TMS deployment in this corridor, three build alternatives are proposed which could be funded and constructed independently. Alternative 1 would install VDS, and MDS. Alternative 2 would install CCTV and an EMS. Alternative 3, a combination of Alternatives 1 and 2, would install VDS, MDS, CCTV, and an EMS. There is also a No Build Alternative.

The estimated total costs for Alternatives 1, 2, and 3 are \$1,096,000, \$1,233,000 and \$1,884,000 respectively (see Attachment E). This Project Study Report (PSR) was initiated by Caltrans Traffic Operations and is a candidate for the 2006 SHOPP, 20.10.201.315 (HB4N) Operational Improvement/Mobility Program. It is expected that the proposed project would be funded in the 2008/09 fiscal year.

The attached Right of Way Data Sheet (see Attachment F) indicates that the proposed elements will be constructed within the existing right of way and therefore it is not necessary to acquire any right of way. The Data Sheet also indicates that \$32,000 is the State's share of utility costs.

2. Background

It has been recognized that the highway system is maturing in the Central Coast area and that more emphasis on traffic management techniques would be required to improve the efficiency of highway during peak demand periods.

The Central Coast Intelligent Transportation System Strategic Deployment Plan (CCITSSDP), which was completed in June 2000, has identified Route 68 as a priority corridor for deployment of the Intelligent Transportation System (ITS) (see Section 5). ITS applies advanced sensor, computer, electronics, communication technologies and management strategies to increase the safety and efficiency of the transportation system. A TMS, also known as Traffic Operation System (TOS), uses ITS field components in combination with a Traffic Management Center (TMC) to improve the efficiency of the transportation system.

In the study area (limits of the project), traffic congestion occurs primarily due to high weekday and weekend peak travel demands. The construction of capacity-increasing projects in this area is a long-term and complex endeavor while, for the near term, traffic projections indicate that congestion would increase. When vehicle demand exceeds a route's capacity, congestion develops, speed drops and the number of incidents increase.

Incidents such as traffic collisions, mechanical breakdowns, spills, construction, maintenance activities, or special events can cause severe congestion and secondary incidents to occur on the freeway system. When major incidents occur, most motorists find themselves waiting in congestion with no information as to the cause and length of the delay. A TMS provides motorists with real-time information, which reduces driver frustration and allows travelers to adjust their trip as necessary. Without a TMS, emergency personnel would not be alerted to the emergency until reported by a motorist or a California Highway Patrol (CHP) field officer. Thus the proper emergency response to an incident would typically be delayed. In summary, the benefits of a TMS would be to provide up-to-the-minute motorist information, deploy rapid appropriate emergency response to incidents, thereby minimizing the occurrence of secondary incidents, and reduce travel delays.

Responding to a traffic incident involves the following four phases:

- Detection and verification of an incident/condition
- Identification and appropriate response to the incident/condition
- Informing motorist of the incident/condition
- Clearance and restoration of the facilities to full capacity

Minimizing the duration for any of these phases would reduce the impact of incidents in terms of their potential to cause accidents, congestion and delay. Once deployed, VDS and MDS would transmit real-time traffic data to computers and operators at the TMC. When fully functional, computer software would alert TMC operators of a roadway segment where traffic speeds are lower than expected. The TMC operator can then scan the affected segment with CCTV to determine the cause of the congestion. When an incident is identified, CHP officers, emergency response teams, and/or roving service patrol vehicles would be dispatched to assist motorists and to clear the roadway quickly. Simultaneously, Highway Advisory Radio (HAR) and the broadcast media would provide "up-to-the-minute" information on traffic conditions and advise motorist to avoid the congested areas. Real-time information can also be available via the Internet so travelers can make pre-trip decisions about routing, mode, and the best time to start their trip.

This project is expected to provide a reduction in traffic delay and more efficient operation of the highway system. In addition the data collected from this system could be used to assess corridor needs and plan for future improvements.

Existing Facilities

As of June 2005, the following TMS facilities are currently operating within District 5:

- Fourteen CCTV
- Six Changeable Message Signs (CMS)
- Two HAR and two EMS
- Two ramp metering locations

The majority of these facilities rely on dedicated and dial-up phone lines for communications. The TMS elements proposed to be constructed in this PSR would also be operated from the District 5 TMC in the City of San Luis Obispo.

Other Planned Projects

EA 05-0L630K - This is a intersection improvement candidate project which would construct dual westbound left turn lanes at Corral De Tierra from PM 29.2 to PM 13.1.

EA 05-0H810 - This is an intersection improvement as well as an oversight project currently in the PA&ED stage which would construct improvements at the San Benancio intersection from PM 13.1 to PM 13.6.

EA 05-0F700K - This is a bridge widening candidate project which would widen the Salinas River Bridge from PM 17.7 to PM 17.9.

3. Need and Purpose

The proposed project is needed because very little real-time traffic information is currently available to the District 5 TMC within this corridor and the project's purpose is to reduce congestion, improve operations and enhance safety through the use of the additional TMS elements as described in Section 1.

At the present time, TMC operators rely mainly on motorists or CHP field officers to call in an incident due to the lack of real-time traffic information. Once the TMC or dispatch is notified, a CHP field officer must verify (on scene) the location, type, and extent of incident. During this period of time of notification, dispatch, verification and assessment, little information is available to travelers to alert them of the expected duration of the incident and associated delays. In addition, little traffic volume and speed information is available to perform needed traffic studies and to evaluate effectiveness of proposed improvements.

Recurrent and non-recurrent congestion is common in this corridor during peak travel periods. When the traffic demand exceeds a freeway's capacity, congestion develops, speed drops and there is an increase in the number of incidents. The construction of capacity increasing projects in this area is a long term and complex endeavor while, for the near term, traffic projections indicate that congestion would increase.

This project is being proposed to reduce congestion, improve operations, and enhance safety. Through a more efficient identification, verification, and response of incidents, overall delays associated with incidents can be reduced, secondary incidents minimized and emergency response improved. In addition, by informing motorists of conditions ahead, anticipated delays, and alternate routes, driver frustration is diminished, congestion reduced (through trips diverted), and secondary incidents minimized. Finally, additional traffic data in this corridor will provide needed information for preparation of area traffic studies and assessment of improvement options.

4. Alternatives

Three TMS alternatives are considered as part of this PSR, each of which could be constructed independently or in tandem with another. Alternative 3 is a combination of Alternative 1 (VDS and MDS) and Alternative 2 (CCTV and an EMS). It is anticipated that all of the improvements can be constructed within the existing right of way and a summary of the alternatives are presented below:

Alternative 1

This alternative proposes to install seven VDS, and seven MDS (see Attachments B, C and D).

The VDS configuration is used at freeway interchanges and typically includes one loop detector on each on and off-ramp and two loops per mainline lane. The MDS configuration provides detection across all lanes of a mainline segment and is typically placed between intersections or interchanges. This project is scoped with loops buried in the pavement; however, consideration should be given to other vehicle detector technologies (i.e. video, microwave, etc.) when the Project Report (PR) is prepared.

VDS and MDS require the use of controller cabinets, service hookups (power and communication) along with related equipment in order to monitor real-time traffic data (speeds and volumes) and to transmit this information to the District 5 TMC. No Design Exceptions are anticipated for this alternative and the estimated costs (see Attachment E) for this alternative are:

Construction:	\$1,064,000
Right of Way Utilities:	\$ 32,000
Total:	\$1,096,000

Alternative 2

This alternative proposes to install thirteen CCTV and one EMS. (see Attachments B, C and D). A CCTV installation includes a pole, camera, access to service hookups (power and communications), and other associated equipment needed to visually display and monitor live video images at the District 5 TMC. Where possible and appropriate, new CCTV would be placed on existing signal or light standard poles to reduce cost and minimize visual impacts. No Design Exceptions are anticipated for this alternative and the estimated costs (see Attachment E) for this alternative are:

Construction:	\$1,201,000
Right of Way Utilities:	\$ 32,000
Total:	\$1,233,000

Alternative 3

This alternative would combine Alternatives 1 and 2 into a single project (see Attachments B, C and D). A cost saving is expected because of non-duplication of some construction items. No Design Exceptions are anticipated for this alternative and the estimated costs (see Attachment E) for this alternative are:

Construction:	\$1,852,000
Right of Way Utilities:	\$ 32,000
Total:	\$1,884,000

No Build Alternative

No TMS improvements would be done. This alternative would not meet the objectives set by the CCITSSDP nor does it provide for a more effective TOS on Route 68.

Analysis of Proposal

Each of the build alternatives has independent utility and could be implemented sequentially. The greatest system benefit would be realized with Alternative 3. VDS and MDS (Alternative 1) are the highest priority components for additional TMS implementation on Route 68. The No Build Alternative does not address the purpose/need of this project and does not meet the objectives of the CCITSSDP.

As mentioned previously, Alternative 3 has been chosen for programming due to the potential for securing funding in the 2006 SHOPP and the added benefit/cost savings associated with constructing all components as a single project. If programmed in the 2006 SHOPP, the TMS improvements associated with Alternative 3 would be funded in the 2008/09 fiscal year.

If this project is not funded as part of the 2006 SHOPP and/or a lower cost alternative is needed, a supplemental PSR can be prepared to modify the program alternative. Since the preliminary cost and environmental scoping would be already completed for all of the build alternatives, the supplemental PSR could be prepared with minimal resources.

With regard to ongoing operations costs, TMS elements rely on power and communication connections to supply real-time traffic data to and from the District 5 TMC. The operations costs associated with maintaining these service connections should be minimized, where possible, by consolidating service and power connections with other field devices. Options for this consolidation includes locating TMS elements near other field devices (i.e. light and signal standards, etc.), co-locating TMS elements and/or networking nearby devices/elements (hard-line or wireless). These and other options for minimizing monthly service connection fees should be explored during the PR phase of this project.

Base-year traffic volumes were obtained from the "Association of Monterey Bay Governments (AMBAG)" Model and "2004 Traffic Volumes on California State Highways." Growth data was obtained from the travel model maintained by AMBAG. Other traffic data was obtained from the Highway Route Segment Inventory.

TRAFFIC DATA								
	DHV			AADT			PK HR Growth Rate	ADT Growth Rate
Post Miles	2009	2019	2029	2009	2019	2029		
L4.0 – L4.2	2,131	2,193	2,255	25,489	26,467	27,444	.30 %	.39 %
R3.95 – R6.81	2,191	2,274	2,356	25,018	26,055	27,091	.38 %	.42 %
6.81 – 11.22	2,632	2,797	2,962	25,959	27,877	29,795	.65 %	.77 %
11.22 – 13.33	2,584	2,851	3,118	23,510	26,530	29,551	1.09 %	1.37 %
13.33 – R17.19	2,853	3,158	3,464	28,689	33,067	37,455	1.13 %	1.65 %
R17.19 – R18.1	3,511	4,653	4,653	42,923	42,923	49,539	1.77 %	2.00 %
	% Split			% Trucks in Peak Hour				
L4.0 – R17.19	55			2				
R17.19 – R18.1	60			4				

Note: DHV, AADT, PK HR and ADT are abbreviations for Daily Hourly Volume, Average Annual Daily Traffic, Peak Hour and Average Daily Traffic respectively.

5. System Planning

A number of agencies, including Caltrans, the CHP and AMBAG were involved in the development of the recently completed CCITSSDP. This plan identified the segment of Route 68 from PM L4.0 to PM R18.1 in Monterey County as a high priority corridor for implementation of a TMS.

Within District 5, Route 68 begins in the City of Pacific Grove and extends easterly approximately 22 miles through Monterey County. It ends at the junction with Route 101 in the City of Salinas. It is predominately a two-lane conventional highway except for two short four-lane freeway segments. The Route accommodates regional, commuter and recreational traffic.

Route 68 is functionally classified as an Urban/Rural Principal Arterial. It is on the Interregional Road System (IRRS) and is a designated Focus route in the Interregional Transportation Strategic Plan (ITSP). It is also a Terminal Access (TA) route and is part of the Freeway and Expressway System (FES). The geometric standards for TA routes are high enough to accommodate the larger trucks covered under the Federal Surface Transportation Assistance Act (STAA).

The Transportation Concept Report (TCR) for Route 68 is currently being updated. The Report will identify the Concept Level of Service (LOS) for the 20-year planning horizon as well as the Ultimate Transportation Corridor (UTC) beyond the horizon as follows:

- Concept – LOS “D” with a four-lane freeway
- UTC – Four-lane freeway

In summary, the proposed project would be consistent with the updated TCR and as well as other planning documents.

6. Hazardous Material/Waste

The Central Region Environmental Branch prepared an Initial Site Assessment (ISA) for the proposed project on July 12, 2005. No field review was conducted, but due to the nature of this project, it is unlikely hazardous waste will be encountered.

7. Traffic Management Plan

The District 5 Traffic Operations Branch prepared a Traffic Management Plan Data Sheet/Checklist (TMPDS/C) for the proposed project on August 10, 2005 (see Attachment I) in order to addresses how the project construction elements would impact traffic circulation.

8. Environmental Clearance

The Central Region Environmental Branch prepared a Preliminary Environmental Analysis Report (PEAR) for the proposed project on July 27, 2005 (see Attachment G) and the anticipated environmental document type would be a Categorical Exemption/Categorical Exclusion (CE/CE).

The Federal Highway Administration (FHWA) and Caltrans would act as lead agencies in the preparation of a joint California Environmental Quality Act/National Environmental Policy Act (CEQA/NEPA) environmental document. It is estimated that it would take twelve months to prepare the document. Plant surveys would be conducted over a five-month period from March to July and any impacts to rare plants, oaks, or riparian would require additional studies. Visual resource impacts could be minimized through the use of replacement planting, colored equipment/hardware, smaller cabinets and/or by locating equipment outside the travelling public's view.

9. Right of Way/Utilities

Exact right of way boundaries have not been determined for each location, but it is expected that all equipment and related facilities would be installed within state right of way. Equipment location sites were identified in areas with available electricity; however, these sites may need to be modified or eliminated if it becomes impractical to provide electrical power to them. Communication lines would need to be established at most of the locations, but if this is not practical then some type of cellular system could be utilized.

Utility pot holing costs have been incorporated into the project so that existing high and/or low risk utilities can be identified in the areas of proposed trench lines.

10. Risk Management

The Project Management Branch prepared a Risk Management Plan (RMP) for the proposed project on August 19, 2005 (see Attachment J) in order to address project risks that could occur during construction. Some of the major risks include the following:

- May have ESAs at spot locations
- Communication and electrical service may not be available in certain areas
- May have interference issues between proposed trench lines, etc. and existing above/below ground objects such as trees, walls, creeks, high risk utilities, irrigation facilities, etc.

The RMP is designed as a tool to help the Project Development Team and Project Sponsor in their decisions regarding project alternatives and objectives and encourages the project team to take appropriate measures to minimize adverse impacts to the project scope, schedule or cost. However, the RMP cannot identify all risks in advance of occurrence for a project where some risks are unknown. The current cost estimate and/or schedule does not include quantitative impacts to costs and/or schedule for the risks identified in the RMP.

11. Funding and Scheduling

This project is proposed for programming in the 2006 SHOPP with funding from 20.10.201.315 (HB4N) Operational Improvement/Mobility Program. The various Project Milestones/Dates are noted in the following table:

PROJECT MILESTONE	DATE
PSR Completed	August 2005
PA&ED	October 2007
PS&E to HQ	October 2008
Right of Way Certified	October 2008
Ready to List	January 2009
Contract Approved	May 2009
Job Completed	January 2011

The estimated resources that would be required to design and construct the proposed project are listed below in the Capital and Support Cost Summary (Capital Costs provided by Design and Right of Way functions; Support Costs obtained from XPM):

PROJECT COST COMPONENT	FISCAL YEARS						GRAND TOTAL
	2005/06	2006/07	2007/08	2008/09	2009/10	Future	
R/W Capital			32				32
Construction Capital				2,024			2,085
PA&ED		204					204
PS&E		369					369
R/W Support		37					37
Construction Support				227			227
Total Each Column		610		259	2,085		2,954

Note: All costs X \$1,000. Construction Capital and Support Costs escalated at 3.0% & 2.0% per year respectively. Right of Way Capital costs escalated at 5.0% per year. Support Categories are the same as those identified by SB 45.

12. Project Personnel

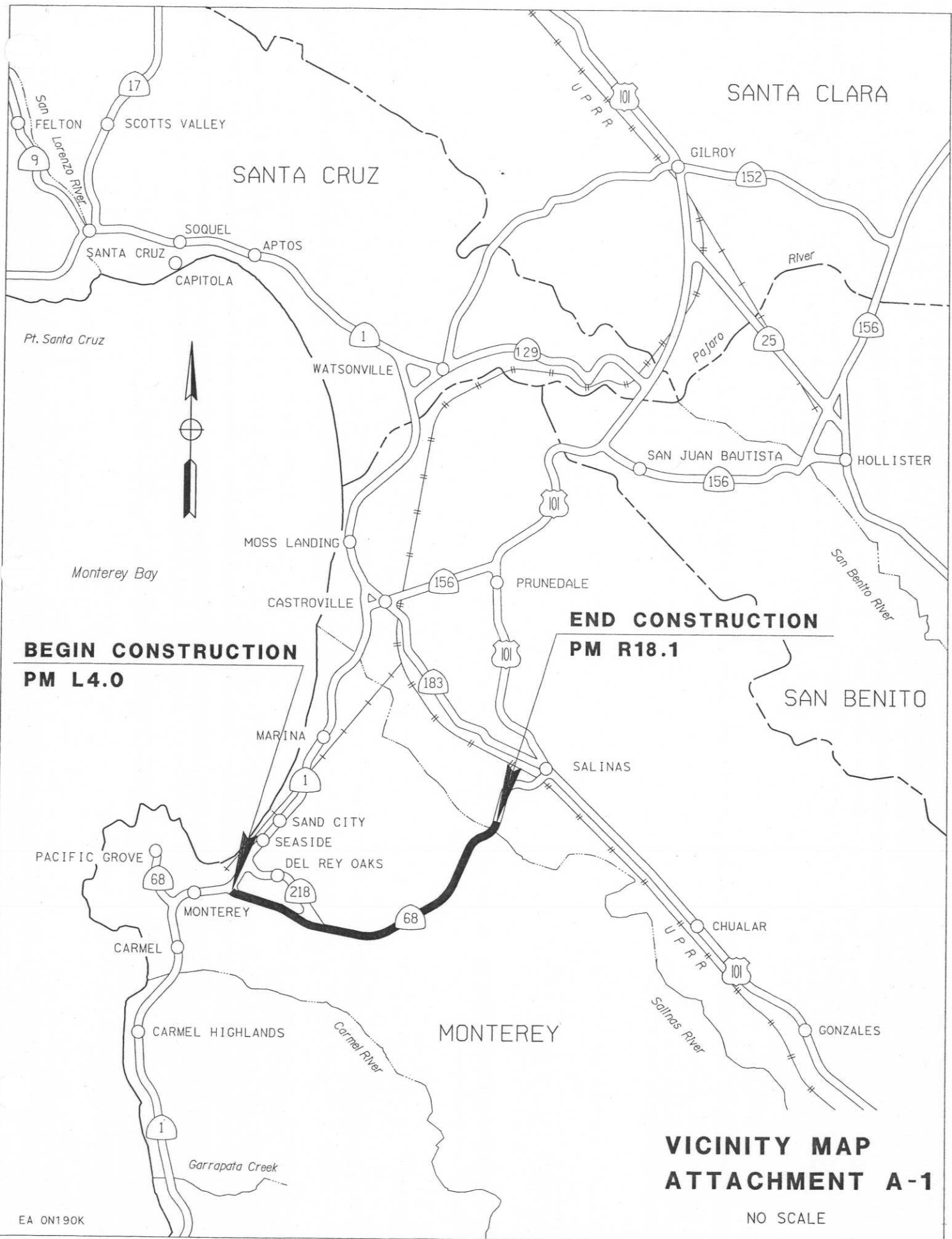
NAME	TITLE	PHONE NUMBER
Doug Hessing	Project Manager	805-549-3788
John Luchetta	Senior Environmental Planner	805-549-3493
Paul Mcclintic	Senior Traffic Operations Engineer	805-549-3473
Steven Milton	Senior Design Engineer	559-230-3102
Skip Tullock	Project Engineer	559-243-3872

13. List of Attachments

Attachment A – Vicinity Map
Attachment B – Strip Plan
Attachment C – Construction Details
Attachment D – Location of Work Table
Attachment E – Project Cost Estimates
Attachment F – Right of Way Data Sheet
Attachment G – Preliminary Environmental Analysis Report
Attachment H – Storm Water Data Report Cover Sheet
Attachment I – Transportation Management Plan Data Sheet/Checklist
Attachment J – Risk Management Plan

14. Distribution List

FHWA – Dominic Hoang
HQ Division of Design (2)
HQ Transportation Programming – John Van Berkel
HQ Environmental – Kelly Dunlap
HQ Traffic Operations – Raul Sanchez
Central Region Traffic Design – Hassan Marei
Central Region Materials – Ron Sekhon
Central Region Environmental – Christine Cox
Central Region Records – Tami Cox
D05 Project Manager – Doug Hessing
D05 Maintenance – Lance Gorman
D05 Traffic Management – James Alessi
D05 Traffic Operations – Paul McClintic
D05 Landscape – Dennis Reeves
D05 Right of Way – John Maddux
D05 Planning – Claudia Espino
D05 Surveys – Tama Gonzalez (electronic copy only)
D05 Surveys – Rob Isackson
D05 Surveys – Nick Tatarian
D05 Records – Victoria Pozuelo
D06 Design Engineer (3) – Original +2
D06 PPM – Teresa Rix



**BEGIN CONSTRUCTION
PM L4.0**

**END CONSTRUCTION
PM R18.1**

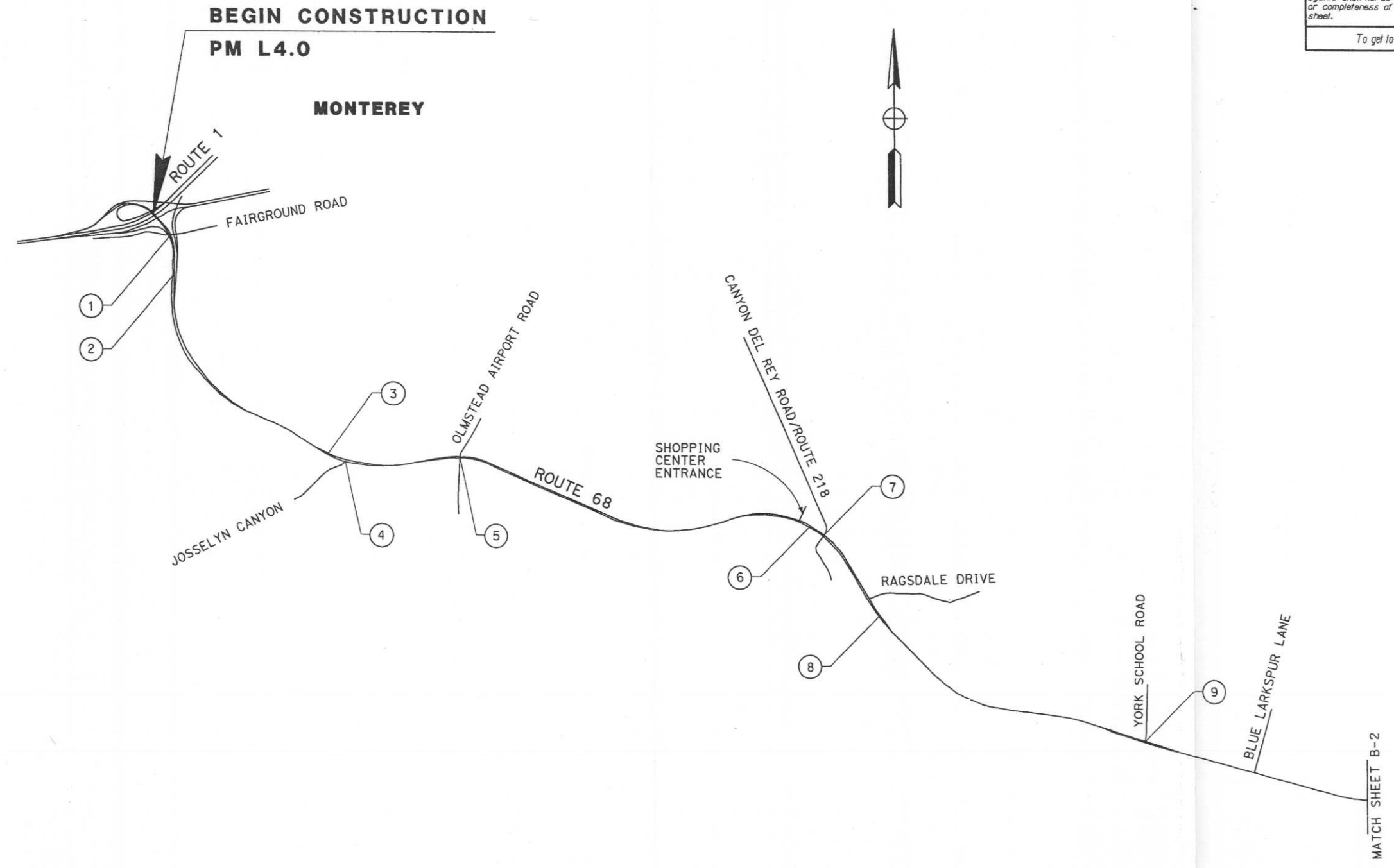
**VICINITY MAP
ATTACHMENT A-1**

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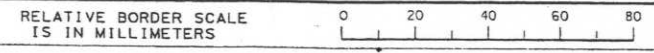
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER	WILLARD TULLOCK	CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE
Caltrans PROJECT DEVELOPMENT							

DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO	TOTAL SHEETS
05	MON	68	L4.0/R18.1		

REGISTERED CIVIL ENGINEER
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DATE PLOTTED => 16-AUG-2005
TIME PLOTTED => 12:56

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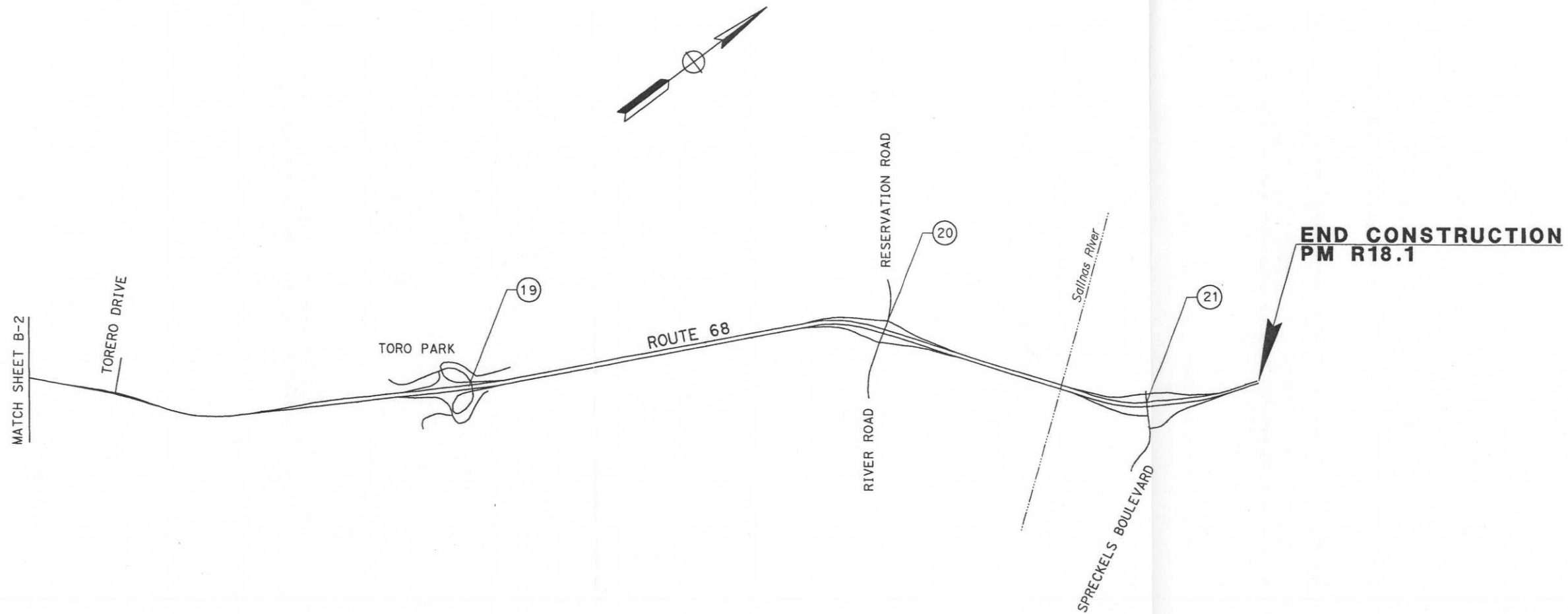
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EXP.

CIVIL

STATE OF CALIFORNIA



GUIDELINE NOTES

1. The location for the exit ramp count detector(s) is flexible. A single lane exit ramp that divides into 2 or more lanes can be counted with a single detector loop placed before the lane divides.
2. Power and Communication connections will be required at each location. These connections may be shared with other nearby field devices.



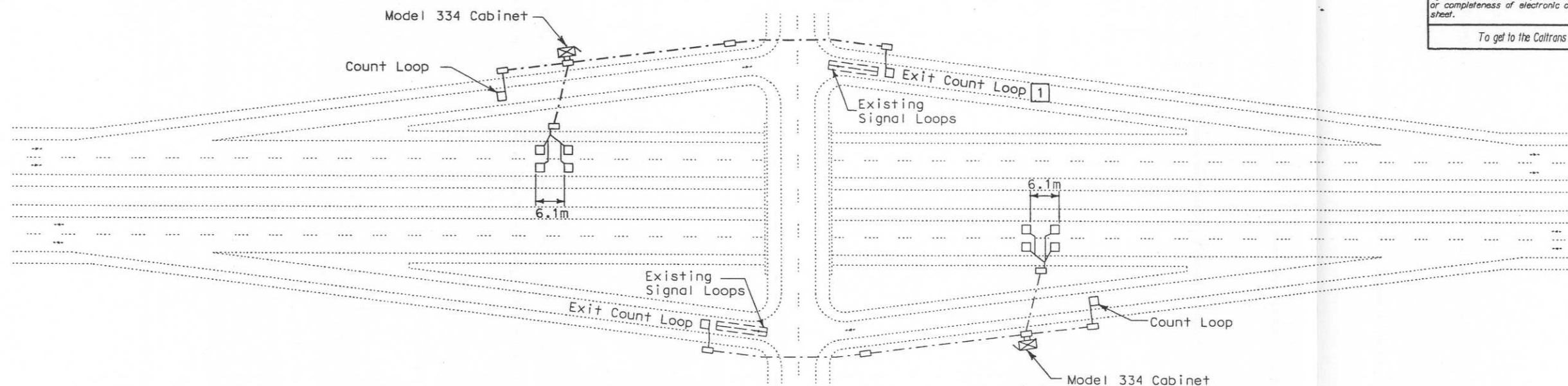
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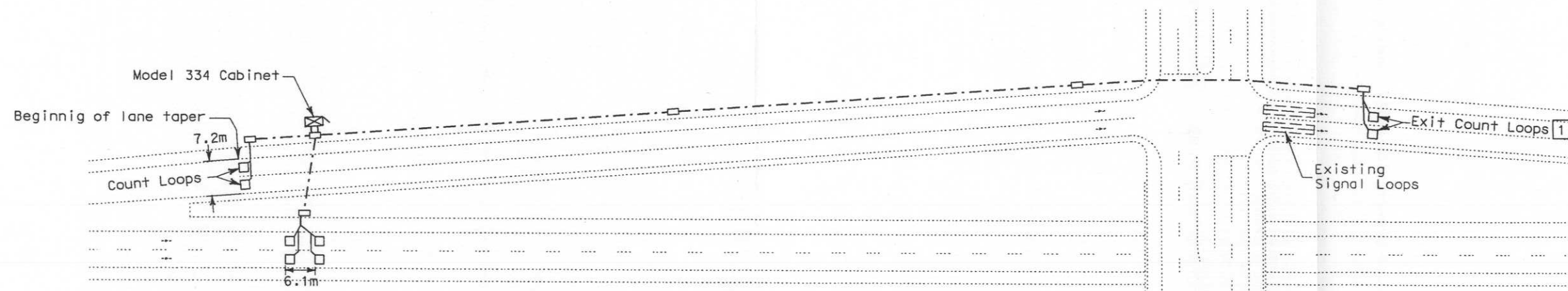
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EXAMPLE 1: DIAMOND INTERCHANGE WITH SINGLE-LANE RAMPS (A)
(SAME LOOP AND CABINET CONFIGURATION WOULD BE INSTALLED IN OPPOSITE DIRECTION OF TRAVEL AT INTERCHANGE)



EXAMPLE 2: DIAMOND INTERCHANGE WITH 2-LANE RAMPS (B)
(SAME LOOP AND CABINET CONFIGURATION WOULD BE INSTALLED IN OPPOSITE DIRECTION OF TRAVEL AT INTERCHANGE)

D05 VEHICLE DETECTION SYSTEM (VDS) LOOP & CABINET PLACEMENT DESIGN GUIDE

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

SHEET 1 OF 2
SCALE 1:500

C-1

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS

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CU 05390

EA ON190K

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
PROJECT ENGINEER
S. GILLILAND
ELECTRICAL OPERATIONS

REVISOR
DATE
6/03
SRG
CALCULATED/DESIGNED BY
CHECKED BY

REVISOR
DATE
6/03
DATE REVISED

GUIDELINE NOTES

1. The location for the exit ramp count detector(s) is flexible. A single lane exit ramp that divides into 2 or more lanes can be counted with a single detector loop placed before the lane divides.
2. Power and Communication connections will be required at each location. These connections maybe shared with other nearby field devices.



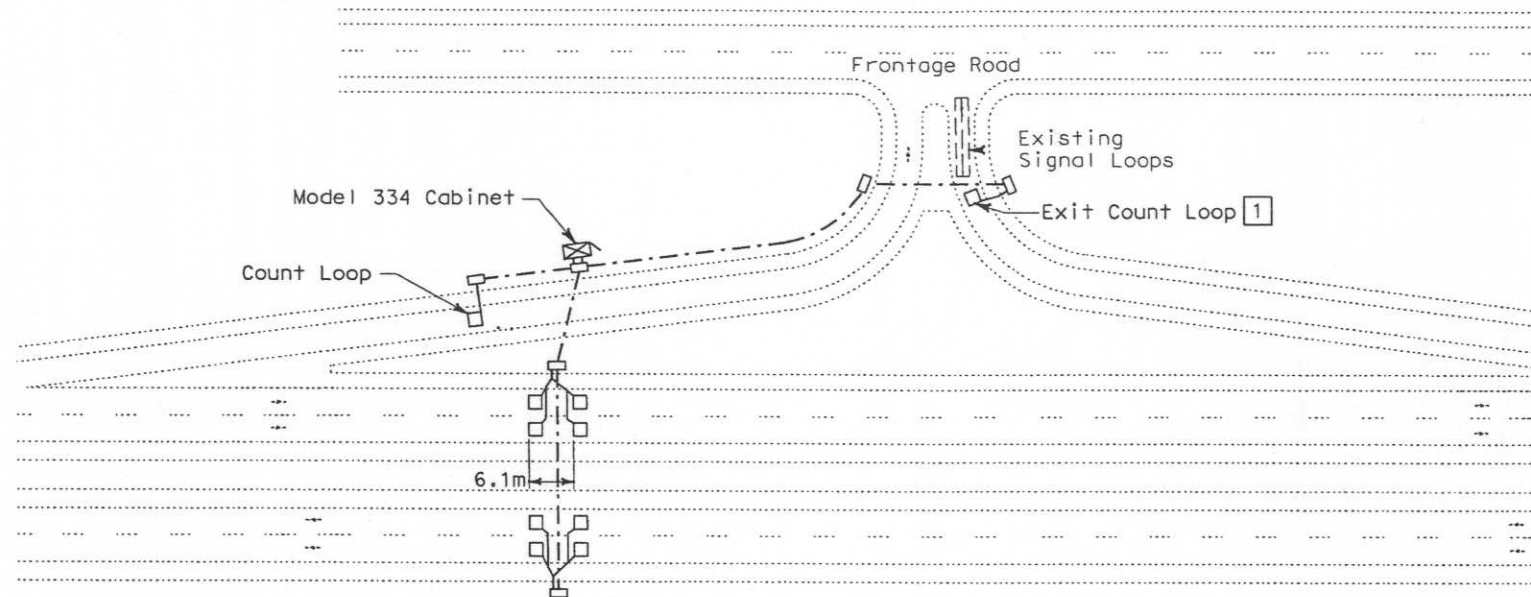
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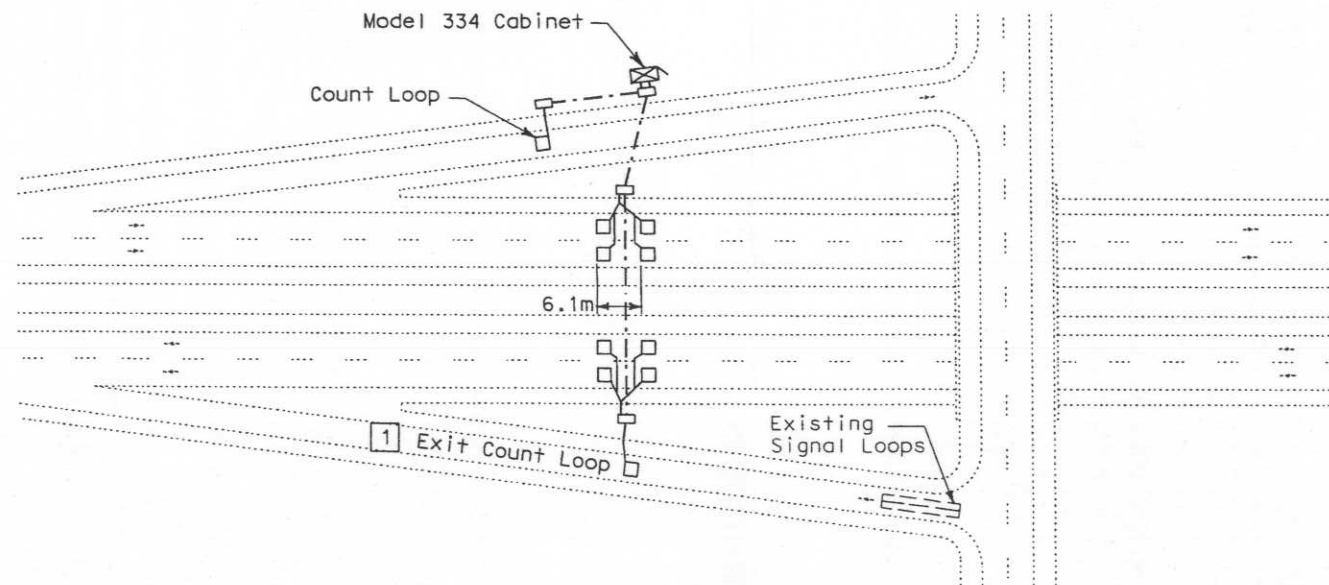
PLANS APPROVAL DATE

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EXAMPLE 3: HOOK RAMPS (C)



EXAMPLE 4: HALF-DIAMOND INTERCHANGE WITH SINGLE-LANE RAMPS (D)

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

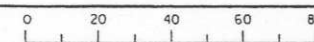
D05 VEHICLE DETECTION SYSTEM (VDS) LOOP & CABINET PLACEMENT DESIGN GUIDE

SHEET 2 OF 2

SCALE 1:500

C-2

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CU 05390

EA 0N190K

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08-08-05 TIME PLOTTED => 13:51

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Caltrans ELECTRICAL OPERATIONS
PROJECT ENGINEER
S. GILLILAND
CALCULATED/DESIGNED BY
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SRG
DATE
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REVISED BY
DATE
REVIS

GUIDELINE NOTES

- 1 The location for the exit ramp count detector(s) is flexible. A single lane exit ramp that divides into 2 or more lanes can be counted with a single detector loop placed before the lane divides.
2. Power and Communication connections will be required at each location. These connections maybe shared with other nearby field devices.



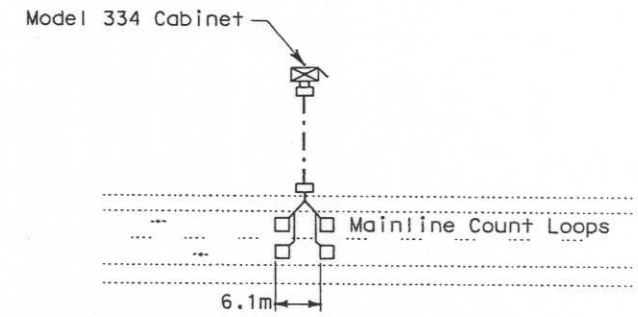
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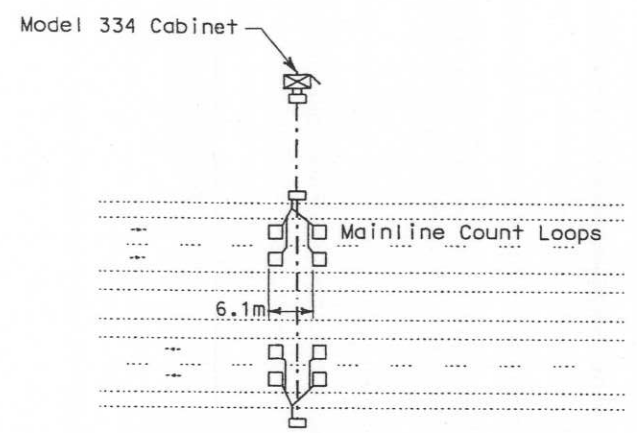
PLANS APPROVAL DATE

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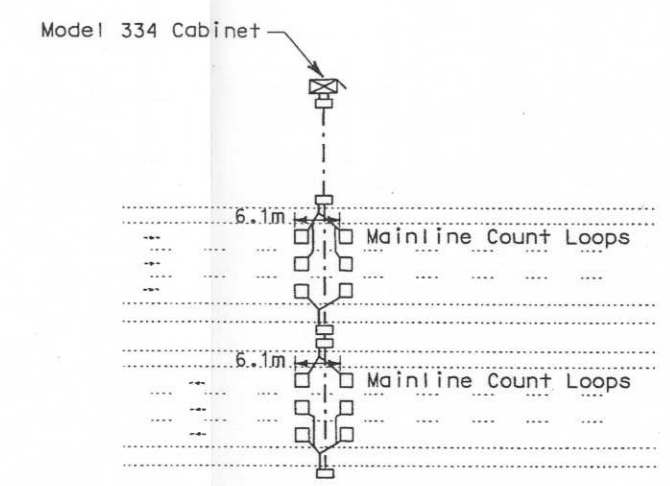
To get to the Caltrans web site, go to: <http://www.dot.ca.gov>



MDS FOR 2 LANE HIGHWAYS (E)

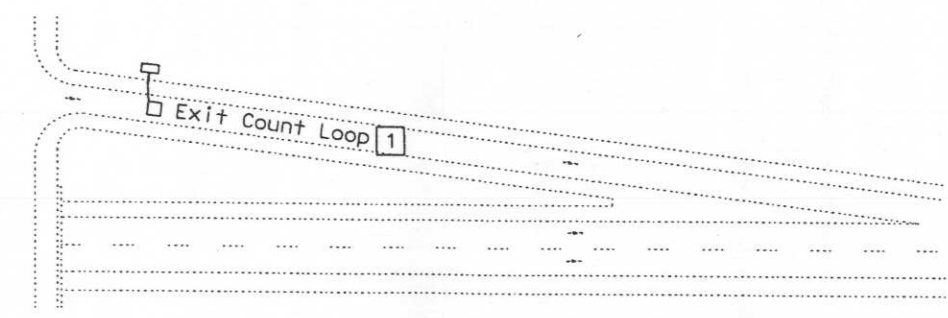


MDS FOR 4 LANE HIGHWAYS (F)



MDS FOR 6 LANE HIGHWAYS (G)

MAINLINE DETECTION SYSTEM CONFIGURATIONS (MDS) FOR 2, 4 OR 6 LANE HIGHWAYS



REMOTE COUNT LOOP (H)

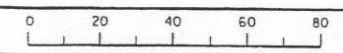
NOTE: THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

D05 MAINLINE DETECTION SYSTEM (MDS) LOOP & CABINET PLACEMENT DESIGN GUIDE

SHEET 1 OF 1
SCALE 1:500

C-3

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS



USERNAME => t6jbul
DGN FILE => Attachment C.dgn

CU 05390

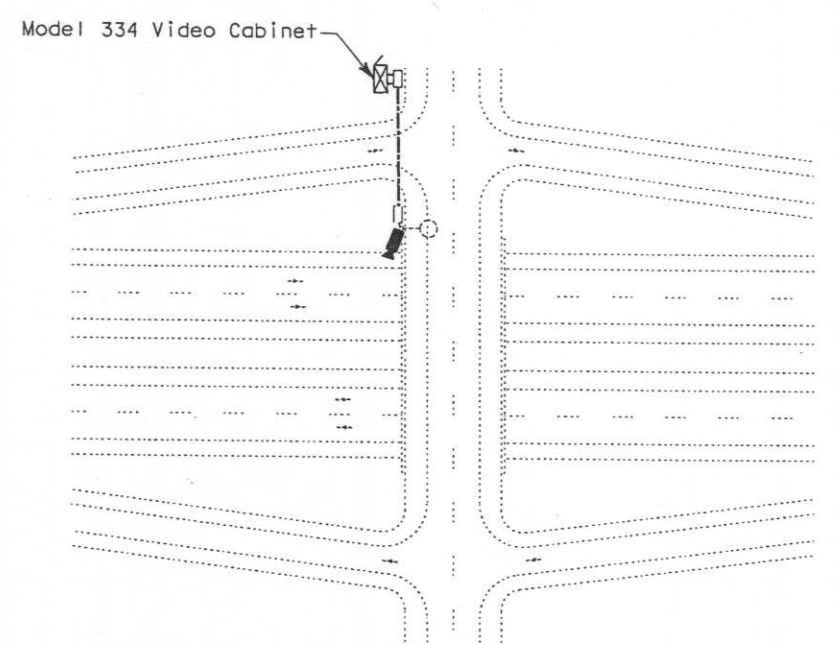
EA ON190K

DATE PLOTTED => 16-AUG-2005
TIME PLOTTED => 13:51
08-08-05

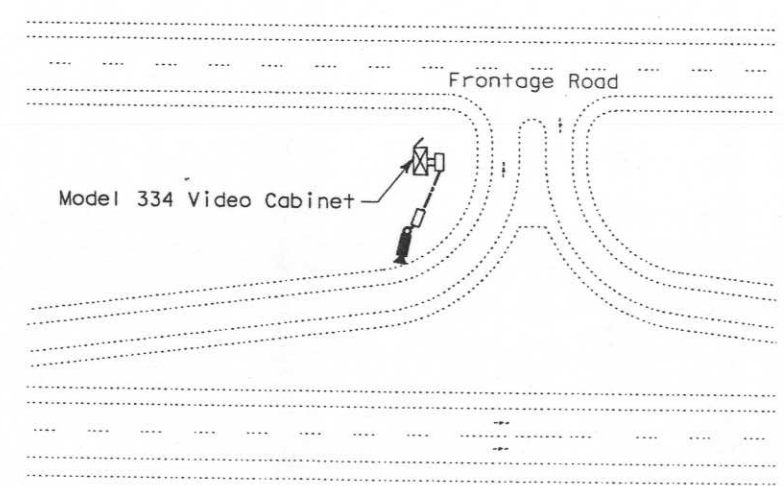
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER	S. GILLILAND
	CALCULATED/DESIGNED BY	SRG
	CHECKED BY	
	DATE	6/03
Caltrans	REVISOR	
	DATE	
	REVISOR	
	DATE	

GUIDELINE NOTES

1. Power and Communication connections will be required at each location. These connections may be shared with other nearby field devices.



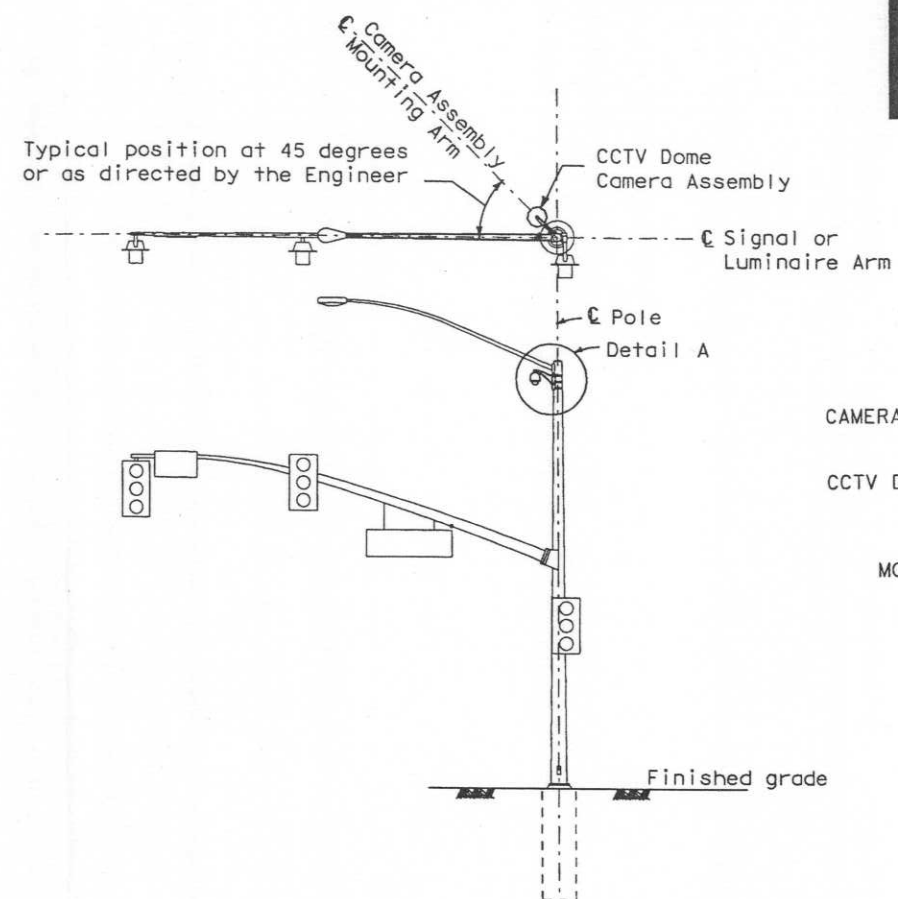
EXAMPLE 1: CCTV MOUNTED ON EXISTING LIGHTING OR SIGNAL STANDARD



EXAMPLE 2: CCTV MOUNTED ON NEW STANDARD

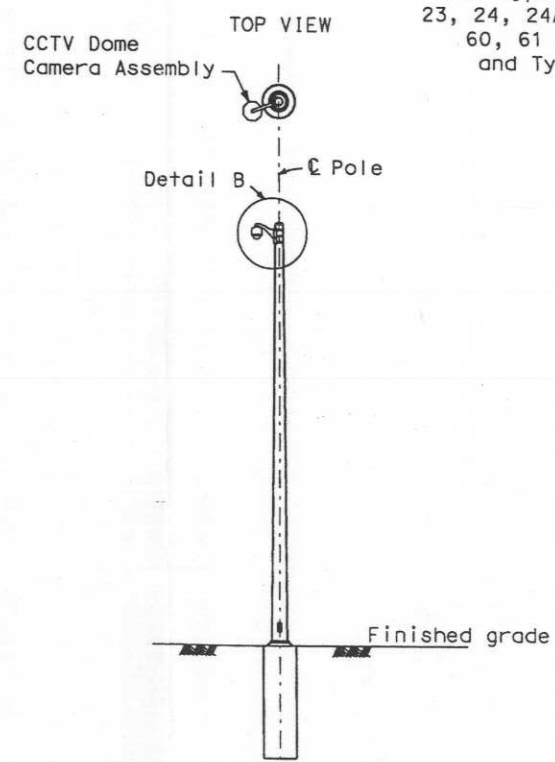
NOTE: THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

TOP VIEW SIGNAL AND LUMINAIRE ARMS



EXAMPLE 1: CCTV DOME CAMERA INSTALLATION

For Type 16, 17, 17A, 18, 19, 19A, 23, 24, 24A, 26, 26A, 27, 28, 29, 29A, 60, 61 and 61A Signal Standards and Type 32 Lighting Standard



EXAMPLE 2: CCTV DOME CAMERA INSTALLATION

For Type CCTV Poles or Fiberglass Standard



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
05	MON	68	L4.0/R18.1		

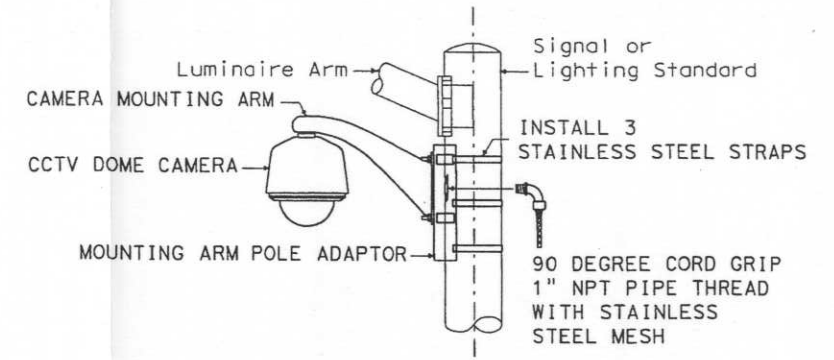
REGISTERED ELECTRICAL ENGINEER

PLANS APPROVAL DATE

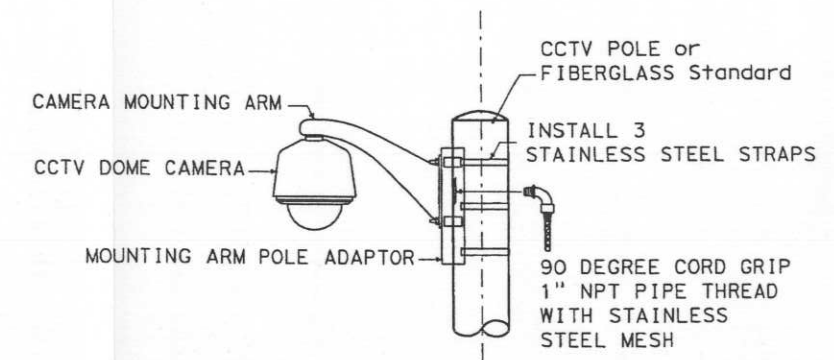
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REGISTERED PROFESSIONAL ENGINEER
No. 15047
Exp. 9-30-03
ELECTRICAL
STATE OF CALIFORNIA



Detail A: CCTV DOME CAMERA MOUNTING DETAIL FOR SIGNAL OR LIGHTING STANDARD
NO SCALE



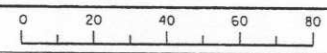
Detail B: CCTV DOME CAMERA MOUNTING DETAIL FOR CCTV POLE OR FIBERGLASS STANDARD
NO SCALE

D05 CLOSED CIRCUIT TELEVISION SYSTEM (CCTV) CAMERA AND CABINET PLACEMENT DESIGN GUIDE

SHEET 1 OF 1
NO SCALE

C-4

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS



USERNAME => tjbull
DGN FILE => Attachment C.dgn

CU 05390

EA 0N190K

LAST REVISION DATE PLOTTED => 16-AUG-2005



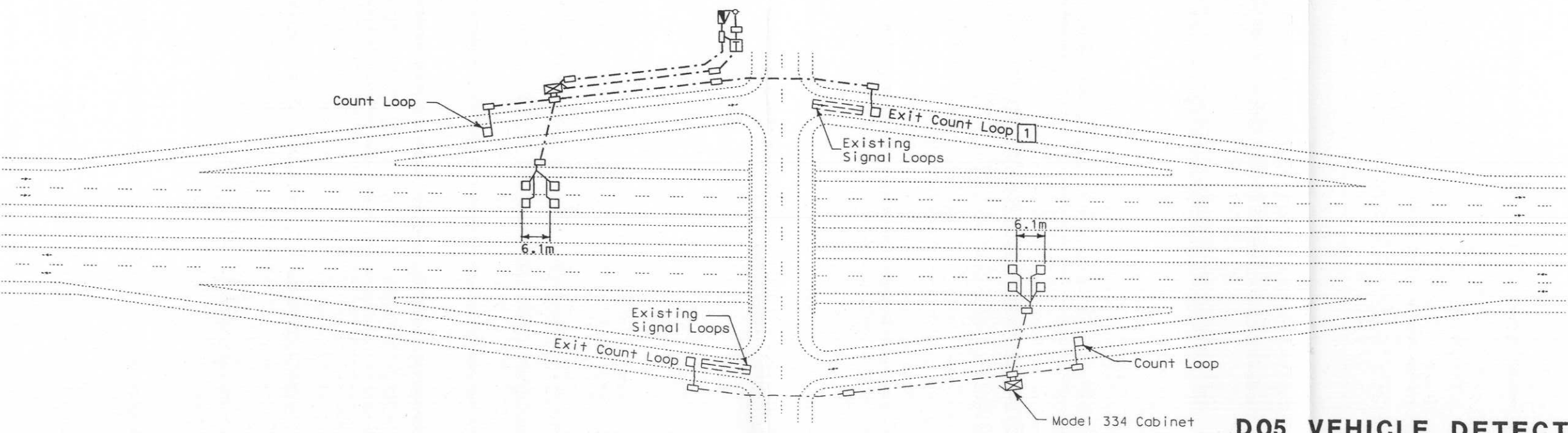
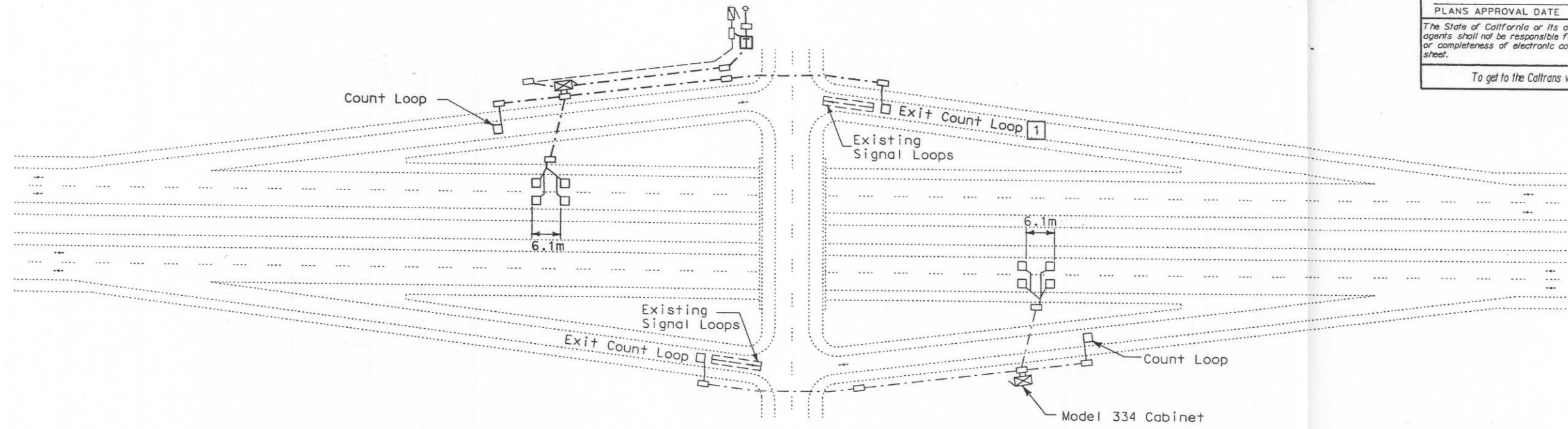
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
05	MON	68	L4.0/R18.1		

REGISTERED ELECTRICAL ENGINEER

PLANS APPROVAL DATE

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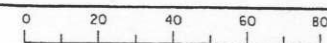
NOTE: THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

D05 VEHICLE DETECTION SYSTEM (VDS) LOOP & CABINET PLACEMENT DESIGN GUIDE

SHEET 1 OF 2
SCALE 1:500

C-6

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS



USERNAME => t6jbul1
DGN FILE => Attachment C.dgn

CU 05390

EA ON190K

LAST REVISION
08-08-05
DATE PLOTTED => 16-AUG-2005
TIME PLOTTED => 14:15

05-0N190K, MON-68-4.0/18.1, Location of Work

LOCATION		EASTBOUND LANES													WESTBOUND LANES													Comments		
No.	Name	PostMile	Ramp		VDS**		MDS*	CCTV	HAR	EMS	RR	MainLanes				PostMile	Ramp		VDS**		MDS*	CCTV	HAR	EMS	RR	MainLanes				
			On	Off	1A	1B*						2	3	4	6		On	Off	1A	1B*						2	3		4	6
1	Fairground Road OC	R4.038	X	X											R4.038	X	X		X										X	
2	E/O Fairground Rd OC														R4.074						X									WB ON Ext Sign Strc
3	W/O Josselyn Canyon Rd	4.854					X					X										X								At Flashing beacon
4	Josselyn Canyon Rd	5.215						X																						Ext Sgnl Pole SE Qd
5	Olmstead Airport Rd														5.570							X								Ext Sgnl Pole NW Qd
6	W/O Canyon Del Rey Rd														6.190					X						X				
7	Canyon Del Rey Rd														6.812						X									Ext Sgnl Pole
8	E/O Ragsdale														7.250					X				X						Approx. .18 mi prior to Ragsdale Dr.
9	York School Rd														8.150						X			X			X			Ext Sgnl Pole NW Qd
10	W/O Pasajera														9.026					X						X				
11	Pasajera/Boots														9.866						X						X			Ext Sgnl Pole NW Qd
12	E/O Pasajera														10.376					X						X				
13	Laguna Seca Main Entrance	10.900													10.900							X								New Pole
14	Laureles Grade Rd														11.221							X								Ext Sgnl Pole NW Qd
15	E/O Laureles Grade Rd	12.046					X					X																		
16	Corral De Tierra Rd														12.950							X								Ext Sgnl Pole NW Qd
17	San Benancio Rd														13.330							X								Ext Sgnl Pole NW Qd
18	E/O San Benancio Rd														14.200					X						X				
19	Toro Park	15.660		X				X							15.680	X		X								X				New Pole
		15.830	X		X							X			15.860		X									X				
20	Reservation / River	R17.04		X											R17.03	X		X							X					
															R17.19							X								New Pole
		R17.36	X		X							X					X													
21	Spreckles	T17.92		X											R17.35		X									X				
															T17.94	X		X								X				
		T18.07													T18.07							X								New Pole
		T18.24	X		X							X			T18.29		X													

Notes:
X - under VDS/MDS/CCTV/HAR column(s) identifies the preliminary placement of the 334 cabinet.
* Detection will be across all Mainline lanes in both directions as shown on sheets E-1B and E-2.
** VDS-1A refers to a system as shown on sheet E-1A.
** VDS-1B refers to a system as shown on sheet E-1B.

VDSA	6
VDSB	1
MDS	7
CCTV	13
HAR	0
EMS	1

PROJECT COST ESTIMATE

Dist-Co-Rte	05-MON-68
PM	L 4.0/R 18.1
EA	0N190K
Program Code	201.315

Project Limits: In Monterey County from PM L-4.0 to PM R-18.1

Proposed Alternative: This project proposes to install Traffic Management System (TMS) elements along State Route (SR) 68 in Monterey County. The elements being considered as part of this project include Vehicle Detectors Systems (VDS) and Mainline Detection Stations (MDS) and associated equipment within the project limits.

Other Alternatives: Alternative 2 and 3.

SUMMARY OF COSTS (current)

Cost for Roadway Items	\$ 1,064,000
Cost for Structure and Railroad Items	\$ 0
Subtotal Construction Cost	\$ 1,064,000
Cost for Right-of-Way Items	\$ 32,000
Total Project Cost	\$ 1,096,000

Reviewed by
Project Engineer

(Signature)

Approved by
Project Manager

(Signature)

8-19-05

(Date)

9.9.05

(Date)

ATTACHMENT E-1

Page 1 of 6

Dist-Co-Rte	05-MON-68
KP	L 4.0/R 18.1
EA	0N190K

I. ROADWAY ITEMS

<u>Section 1 (Earthwork)</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Roadway Excavation		Ft ³	\$	\$	
Imported Borrow		Ft ³	\$	\$	
Clearing & Grubbing	1	LS	\$ 20,000	\$ 20,000	
Pavement Obliteration		Ft ²	\$	\$	

\$ 20,000

Section 2 (Struc. Section)

Miscellaneous		LS	\$	\$
PCC Pavement		Ft ³	\$	\$
Asphalt Concrete		TON	\$	\$
Leveling AC		TON	\$	\$
Lean Concrete		Ft ³	\$	\$
Temporary Pavement		TON	\$	\$
AC Dike		Ft	\$	\$
Treated Permeable Base		Ft ³	\$	\$
Aggregate Subbase		Ft ³	\$	\$
Permeable Material Blanket		Ft ²	\$	\$
Aggregate Base		Ft ³	\$	\$

\$ 0

Section 3 (Drainage)

Large Drainage Facilities		LS	\$	\$
Storm Drains		LS	\$	\$
Pumping Plant		LS	\$	\$
Project Drainage		LS	\$	\$
Rock Slope Protection		Ft ²	\$	\$
RSP Fabric		Ft ²	\$	\$

\$ 0

Dist-Co-Rte	05-MON-68
KP	L 4.0/R 18.1
EA	0N190K

<u>Section 4 (Specialty)</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Temp. Concrete Washouts	1	LS	\$ 10,000	\$ 10,000	
Temp Drainage Inlet Protection	1	LS	\$ 5,000	\$ 5,000	
Replacement Planting	1	LS	\$ 10,000	\$ 10,000	
NPDES WPC (2%)	1	LS	\$ 25,000	\$ 25,000	
Prepare WPCP	1	LS	\$ 2,000	\$ 2,000	
Visual Resource Impacts	1	LS	\$ 70,000	\$ 70,000	
Repair Irrigation	1	LS	\$ 10,000	\$ 10,000	
Move In/Out EC		EA	\$	\$	
Permanent EC	1	LS	\$ 10,000	\$ 10,000	
Additional Water Pollution Program	1	LS	\$ 10,000	\$ 10,000	
Plant Establishment		LS	\$	\$	
Biological Resource Impacts	1	LS	\$ 20,000	\$ 20,000	
Relocate Fence		Ft	\$	\$	
Lead Compliance Plan		LS	\$	\$	
RE Office	1	LS	\$ 42,000	\$ 42,000	
Sampling & Analysis	1	LS	\$ 10,000	\$ 10,000	
					\$ 224,000
<u>Section 5 (Traffic)</u>					
Traffic Control Systems	1	LS	\$ 60,000	\$ 60,000	
Traffic Management Plan	1	LS	\$ 20,000	\$ 20,000	
Maintain Traffic	1	LS	\$ 20,000	\$ 20,000	
Highway Advisory Radio		EA	\$	\$	
Portable CMS's	1	LS	\$ 10,000	\$ 10,000	
COZEPP	7	Day	\$ 880	\$ 6,160	
Construction Area Signs	1	LS	\$ 20,000	\$ 20,000	
Closed Circuit TV	0	EA	\$	\$	
Extinguishable Message Sign	0	EA	\$	\$	
Vehicle Detection Systems A	6	EA	\$ 28,000	\$ 168,000	
Vehicle Detection Systems B	1	EA	\$ 34,000	\$ 34,000	
Service Connections	7	EA	\$ 6,000	\$ 42,000	
Mainline Detection Systems	7	EA	\$ 20,286	\$ 142,002	
Central Control System (CCS)	1	LS	\$ 17,200	\$ 17,200	
		EA	\$	\$	
					\$ 479,362
			SUBTOTAL SECTIONS 1 - 5		\$ 723,362

Dist-Co-Rte	05-MON-68
KP	L 4.0/R 18.1
EA	0N190K

Section 6 - Minor

			Factor	Section Cost
Subtotal Sections 1 - 5	\$ <u>723,362</u>	x (.05 or .10)	<u>0.05</u>	\$ <u>36,168</u>

Section 7 - Roadway Mobilization

Subtotal Sections 1 - 6	\$ <u>759,530</u>	x(.10)	<u>0.10</u>	\$ <u>75,953</u>
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Section 8 - Roadway Additions

I. Supplemental

Subtotal Sections 1 - 6	\$ <u>759,530</u>	x (.05 or .10)	<u>0.05</u>	\$ <u>37,977</u>
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II. Contingencies

Subtotal Sections 1 - 6	\$ <u>759,530</u>	x (0.25)*	<u>0.25</u>	\$ <u>189,883</u>
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TOTAL ROADWAY ITEMS	\$ <u>1,063,342</u>
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* Appropriate percentage per Chapter 20, PDPM.

Dist-Co-Rte	05-MON-68
KP	L 4.0/R 18.1
EA	0N190K

II. STRUCTURE & RAILROAD ITEMS

	No. 1	No. 2	No. 3
Bridge Name	_____	_____	_____
Structure Type	_____	_____	_____
Width (outside to outside, Ft)	_____	_____	_____
Span Lengths (Ft)	_____	_____	_____
Total Area (Ft ²)	_____	_____	_____
Footing Type (pile/spread)	_____	_____	_____
Cost Per Ft+A24 ² ** A76	_____	_____	_____
Total Cost for Structure	_____	_____	_____

Structure \$ _____

Railroad \$ _____

TOTAL STRUCTURE & RAILROAD ITEMS \$ _____ 0

** Includes 10% mobilization and 25% contingency.

Page 5 of 6

Dist-Co-Rte	05-MON-68
KP	L 4.0/R 18.1
EA	0N190K

III. RIGHT-OF-WAY ITEMS

	Escalated Values
Acquisition ***	\$ _____
Mitigation	\$ _____
State Share of Utilities	\$ 32,000
Relocation Assistance Program	\$ _____
Clearance/Demolition	\$ _____
Title and Escrow	\$ _____
Expert Witness	\$ _____
TOTAL RIGHT-OF-WAY ITEMS	\$ 32,000

PROJECT COST ESTIMATE

Dist-Co-Rte	05-MON-68
PM	L 4.0/R 18.1
EA	0N190K
Program Code	201.315

Project Limits: In Monterey County from PM L-4.0 to PM R-18.1

Proposed Alternative: This project proposes to install Traffic Management System (TMS) elements along State Route (SR) 68 in Monterey County. The elements being considered as part of this proposed project include Closed Circuit Television Systems (CCTV), Extinguishable Message signs (EMS), and associated equipment within the project limits.

Other Alternatives: Alternative 1 and 3.

SUMMARY OF COSTS (current)

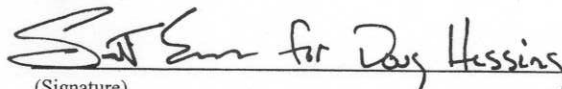
Cost for Roadway Items	\$ 1,201,000
Cost for Structure and Railroad Items	\$ 0
Subtotal Construction Cost	\$ 1,201,000
Cost for Right-of-Way Items	\$ 32,000
Total Project Cost	\$ 1,233,000

Reviewed by
Project Engineer


(Signature)

8-19-05
(Date)

Approved by
Project Manager


(Signature)

9.9.05
(Date)

Dist-Co-Rte 05-MON-68

KP L 4.0/R 18.1

EA 0N190K

I. ROADWAY ITEMSSection 1 (Earthwork)

	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation		FT ³	\$	\$	
Imported Borrow		FT ³	\$	\$	
Clearing & Grubbing	1	LS	\$ 20,000	\$ 20,000	
Pavement Obliteration		FT ²	\$	\$	

\$ 20,000

Section 2 (Struc. Section)

Miscellaneous		LS	\$	\$	
PCC Pavement		FT ³	\$	\$	
Asphalt Concrete		TON	\$	\$	
Leveling AC		TON	\$	\$	
Rumble Strip		FT. STA.	\$	\$	
Lean Concrete		FT ³	\$	\$	
Temporary Pavement		TONN	\$	\$	
AC Dike		FT	\$	\$	
Treated Permeable Base		FT ³	\$	\$	
Aggregate Subbase		FT ³	\$	\$	
P ble Material Blanket		FT ²	\$	\$	
Edge Drains		FT	\$	\$	
Aggregate Base		FT ³	\$	\$	

\$ 0

Section 3 (Drainage)

Large Drainage Facilities		LS	\$	\$ 0	
Storm Drains		LS	\$	\$ 0	
Pumping Plant		LS	\$	\$ 0	
Project Drainage		LS	\$	\$ 0	
Rock Slope Protection		FT ²	\$	\$ 0	
RSP Fabric		FT ²	\$	\$	

\$ 0

Dist-Co-Rte 05-MON-68

KP L 4.0/R 18.1

EA 0N190K

Section 4 (Specialty)	Quantity	Unit	Unit Price	Item Cost	Section Cost
Temp. Concrete Washouts	1	LS	\$ 10,000	\$ 10,000	
Temp Drainage Inlet Protection	1	LS	\$ 5,000	\$ 5,000	
Replacement Planting	1	LS	\$ 10,000	\$ 10,000	
NPDES WPC (2%)	1	LS	\$ 25,000	\$ 25,000	
Prepare WPCP	1	LS	\$ 2,000	\$ 2,000	
Visual Resource Impacts	1	LS	\$ 70,000	\$ 70,000	
Repair Irrigation	1	LS	\$ 10,000	\$ 10,000	
Move In/Out EC		EA	\$	\$	
Permanent EC	1	LS	\$ 10,000	\$ 10,000	
Additional Water Pollution Program	1	LS	\$ 10,000	\$ 10,000	
Plant Establishment		LS	\$	\$	
Biological Resource Impacts	1	LS	\$ 20,000	\$ 20,000	
Relocate Fence		Ft	\$	\$	
Lead Compliance Plan		LS	\$	\$	
RE Office	1	LS	\$ 42,000	\$ 42,000	
Sampling & Analysis	1	LS	\$ 10,000	\$ 10,000	
					\$ 224,000
Section 5 (Traffic)					
Traffic Control Systems	1	LS	\$ 60,000	\$ 60,000	
Traffic Management Plan	1	LS	\$ 20,000	\$ 20,000	
N in Traffic	1	LS	\$ 20,000	\$ 20,000	
Highway Advisory Radio		EA	\$	\$	
Portable CMS's	1	LS	\$ 10,000	\$ 10,000	
COZEPP	14	Day	\$ 880	\$ 12,320	
Construction Area Signs	1	LS	\$ 20,000	\$ 20,000	
Closed Circuit TV	13	EA	\$ 29,808	\$ 387,504	
Extinguishable Message Sign	1	EA	\$ 10,500	\$ 10,500	
Vehicle Detection Systems A		EA	\$	\$	
Vehicle Detection Systems B		EA	\$	\$	
Service Connections	2	EA	\$ 6,000	\$ 12,000	
Mainline Detection Systems		EA	\$	\$	
Central Control System (CCS)	1	LS	\$ 20,450	\$ 20,450	
		EA	\$	\$	
					\$ 572,774
SUBTOTAL SECTIONS 1 - 5					\$ 816,774

Dist-Co-Rte	05-MON-68
KP	L 4.0/R 18.1
EA	0N190K

Section 6 - Minor

			Factor	Section Cost
Subtotal Sections 1 - 5	\$ <u>816,774</u>	x (.05 or .10)	<u>0.05</u>	\$ <u>40,839</u>

Section 7 - Roadway Mobilization

Subtotal Sections 1 - 6	\$ <u>857,613</u>	x(.10)	<u>0.10</u>	\$ <u>85,761</u>
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Section 8 - Roadway Additions

I. Supplemental

Subtotal Sections 1 - 6	\$ <u>857,613</u>	x (.05 or .10)	<u>0.05</u>	\$ <u>42,881</u>
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II. Contingencies

Subtotal Sections 1 - 6	\$ <u>857,613</u>	x (0.25)*	<u>0.25</u>	\$ <u>214,403</u>
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TOTAL ROADWAY ITEMS	\$ <u>1,200,658</u>
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* Appropriate percentage per Chapter 20, PDPM.

Dist-Co-Rte	05-MON-68
KP	L 4.0/R 18.1
EA	0N190K

II. STRUCTURE & RAILROAD ITEMS

	No. 1	No. 2	No. 3
Bridge Name	_____	_____	_____
Structure Type	_____	_____	_____
Width (outside to outside, M)	_____	_____	_____
Span Lengths (M)	_____	_____	_____
Total Area (M ²)	_____	_____	_____
Footing Type (pile/spread)	_____	_____	_____
Cost Per M ² **	_____	_____	_____
Total Cost for Structure	_____	_____	_____

Structure \$ _____

Railroad \$ _____

TOTAL STRUCTURE & RAILROAD ITEMS \$ _____ 0

** Includes 10% mobilization and 25% contingency.

Page 5 of 6

Dist-Co-Rte	05-MON-68
KP	L 4.0/R 18.1
EA	0N190K

III. RIGHT-OF-WAY ITEMS

	Escalated Values
Acquisition ***	\$ _____
Mitigation	\$ _____
State Share of Utilities	\$ 32,000
Relocation Assistance Program	\$ _____
Clearance/Demolition	\$ _____
Title and Escrow	\$ _____
Expert Witness	\$ _____
TOTAL RIGHT-OF-WAY ITEMS	\$ 32,000

PROJECT COST ESTIMATE

Dist-Co-Rte 05-MON-68
PM L 4.0/R 18.1
EA 0N190K
Program Code 201.315

Project Limits: In Monterey County from PM L-4.0 to PM R-18.1

Proposed Alternative: This project proposes to install Traffic Management System (TMS) elements along State Route
(SR) 68 in Monterey County. The elements being considered as part of this proposed project include
Vehicle Detectors Systems (VDS), Mainline Detection Stations (MDS), Closed Circuit Television Systems (CCTV),
Extinguishable Message signs (EMS), and associated equipment within the project limits.

Other Alternatives: Alternative 1 and 2.

SUMMARY OF COSTS (current)

Cost for Roadway Items	\$ <u>1,852,000</u>
Cost for Structure and Railroad Items	\$ <u></u>
Subtotal Construction Cost	\$ <u>1,852,000</u>
Cost for Right-of-Way Items	\$ <u>32,000</u>
Total Project Cost	\$ <u>1,884,000</u>

Reviewed by
Project Engineer

Will W
(Signature)

8-19-05
(Date)

Approved by
Project Manager

Sam for Doug Hessing
(Signature)

9.9.05
(Date)

ATTACHMENT E-3

Page 1 of 6

ATTACHMENT E-3/1

Dist-Co-Rte	05-MON-68
KP	L 4.0/R 18.1
EA	0N190K

I. ROADWAY ITEMS

Section 1 (Earthwork)	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation		Ft ³	\$	\$	
Imported Borrow		Ft ³	\$	\$	
Clearing & Grubbing	1	LS	\$ 20,000	\$ 20,000	
Pavement Obliteration		Ft ²	\$	\$	
					\$ 20,000
Section 2 (Struc. Section)					
Miscellaneous		LS	\$ N/A	\$	
PCC Pavement		Ft ³	\$	\$	
Asphalt Concrete		TON	\$	\$	
Leveling AC		TON	\$	\$	
Rumble Strip		Ft. STA.	\$	\$	
Lean Concrete		Ft ³	\$	\$	
Temporary Pavement		TON	\$	\$	
AC Dike		M	\$	\$	
1 Permeable Base		Ft ³	\$	\$	
Aggregate Subbase		Ft ³	\$	\$	
Permeable Material Blanket		Ft ²	\$	\$	
Edge Drains		Ft	\$	\$	
Aggregate Base		Ft ³	\$	\$	
					\$
Section 3 (Drainage)					
Large Drainage Facilities		LS	\$	\$	
Storm Drains		LS	\$	\$	
Pumping Plant		LS	\$	\$	
Project Drainage		LS	\$	\$	
Rock Slope Protection		Ft ²	\$	\$	
RSP Fabric		Ft ²	\$	\$	
					\$

Dist-Co-Rte 05-MON-68

KP L 4.0/R 18.1

EA 0N190K

Section 4 (Specialty)	Quantity	Unit	Unit Price	Item Cost	Section Cost
Temp. Concrete Washouts	1	LS	\$ 10,000	\$ 10,000	
Temp Drainage Inlet Protection	1	LS*	\$ 5,000	\$ 5,000	
Replacement Planting	1	LS	\$ 10,000	\$ 10,000	
NPDES WPC (2%)	1	LS	\$ 40,000	\$ 40,000	
Prepare WPCP	1	LS	\$ 2,000	\$ 2,000	
Visual Resource Impacts	1	LS	\$ 70,000	\$ 70,000	
Repair Irrigation	1	LS	\$ 15,000	\$ 15,000	
Move In/Out EC		EA	\$	\$	
Permanent EC	1	LS	\$ 10,000	\$ 10,000	
Additional Water Pollution Program	1	LS	\$ 10,000	\$ 10,000	
Plant Establishment		LS	\$	\$	
Biological Resource Impacts	1	LS	\$ 20,000	\$ 20,000	
Relocate Fence		Ft	\$	\$	
Lead Compliance Plan		LS	\$	\$	
RE Office	1	LS	\$ 42,000	\$ 42,000	
Sampling & Analysis	1	LS	\$ 10,000	\$ 10,000	
					\$ 244,000
Section 5 (Traffic)					
Traffic Control Systems	1	LS	\$ 80,000	\$ 80,000	
Traffic Management Plan	1	LS	\$ 20,000	\$ 20,000	
Maintain Traffic	1	LS	\$ 20,000	\$ 20,000	
Highway Advisory Radio		EA	\$ 42,500	\$	
Portable CMS's	1	LS	\$ 10,000	\$ 10,000	
COZEEP	21	Day	\$ 880	\$ 18,480	
Construction Area Signs	1	LS	\$ 20,000	\$ 20,000	
Closed Circuit TV	13	EA	\$ 29,808	\$ 387,504	
Extinguishable Message Sign	1	EA	\$ 10,500	\$ 10,500	
Vehicle Detection Systems A	6	EA	\$ 28,000	\$ 168,000	
Vehicle Detection Systems B	1	EA	\$ 34,000	\$ 34,000	
Service Connections	8	EA	\$ 6,000	\$ 48,000	
Mainline Detection Systems	7	EA	\$ 20,286	\$ 142,002	
Central Control System (CCS)	1	LS	\$ 37,100	\$ 37,100	
		EA	\$	\$	
					\$ 995,586
SUBTOTAL SECTIONS 1 - 5					\$ 1,259,586

Dist-Co-Rte	05-MON-68
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Section 6 - Minor

			Factor	Section Cost
Subtotal Sections 1 - 5	\$ <u>1,259,586</u>	x (.05 or .10)	<u>0.05</u>	\$ <u>62,979</u>

Section 7 - Roadway Mobilization

Subtotal Sections 1 - 6	\$ <u>1,322,565</u>	x(.10)	<u>0.10</u>	\$ <u>132,257</u>
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Section 8 - Roadway Additions

I. Supplemental

Subtotal Sections 1 - 6	\$ <u>1,322,565</u>	x (.05 or .10)	<u>0.05</u>	\$ <u>66,128</u>
-------------------------	---------------------	----------------	-------------	------------------

II. Contingencies

Subtotal Sections 1 - 6	\$ <u>1,322,565</u>	x (0.25)*	<u>0.25</u>	\$ <u>330,641</u>
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TOTAL ROADWAY ITEMS	\$ <u>1,851,591</u>
---------------------	---------------------

* Appropriate percentage per Chapter 20, PDPM.

Dist-Co-Rte	05-MON-68
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II. STRUCTURE & RAILROAD ITEMS

	<u>No. 1</u>	<u>No. 2</u>	<u>No. 3</u>
Bridge Name	_____	_____	_____
Structure Type	_____	_____	_____
Width (outside to outside, Ft)	_____	_____	_____
Span Lengths (Ft)	_____	_____	_____
Total Area (Ft ²)	_____	_____	_____
Footing Type (pile/spread)	_____	_____	_____
Cost Per Ft ² **	_____	_____	_____
Total Cost for Structure	_____	_____	_____

Structure \$ _____

Railroad \$ _____

TOTAL STRUCTURE & RAILROAD ITEMS \$ _____

** Includes 10% mobilization and 25% contingency.

Page 5 of 6

Dist-Co-Rte	05-MON-68
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III. RIGHT-OF-WAY ITEMS

	Escalated Values
Acquisition ***	\$ _____
Mitigation	\$ _____
State Share of Utilities	\$ 32,000
Relocation Assistance Program	\$ _____
Clearance/Demolition	\$ _____
Title and Escrow	\$ _____
Expert Witness	\$ _____
TOTAL RIGHT-OF-WAY ITEMS	\$ 32,000

Memorandum

To: DOUG HESSING
ATOLL

Date: 7/21/2005

File: EA ON190K ALT NA

Attn: STEVEN MILTON
FRESNO DESIGN

DESCRIPTION:

INSTALL TMS ELEMENTS ALONG RTE 68 IN MONTEREY
COUNTY. ELEMENTS INCLUDE VDS, MDS, CCTV, EMS,
HAR, VDL AND RELATED EQUIPMENT

From: Department of Transportation
Division of Right of Way Central Region

Subject: RIGHT OF WAY DATA SHEET

We have completed an estimate of the right of way costs for the
above-referenced project based on the Right of Way Data Sheet
Request Form dated

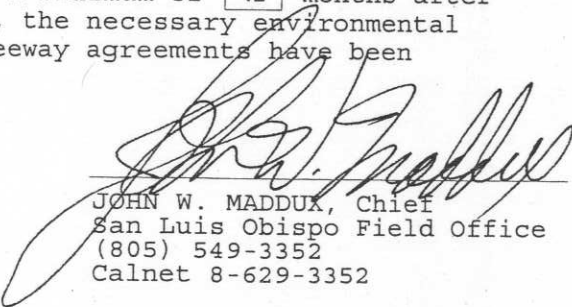
6/27/2005

The following assumptions and limiting conditions were identified:

Additional information includes the following:

Route 68 is designated Conventional Highway except for the last
approximately 3 miles which is designated Freeway, from PM 15.18 to the
end of the project. Please avoid and/or protect all buried facilities
when installing poles, cabinets, and any installation that disturbs the
ground more than 12 inches deep within the right of way. Facilities of
concern: PG&E's 8-in high pressure gas line and SBC's buried fiber optics
line. Estimates for pos locs are shown as Tele Vaults above.
Verifications required.

Right of Way Lead Time will require a minimum of 12 months after
we receive certified Appraisal Maps, the necessary environmental
clearance has been obtained, and freeway agreements have been
approved.



JOHN W. MADDUX, Chief
San Luis Obispo Field Office
(805) 549-3352
Calnet 8-629-3352

ATTACHMENT F-1

REQUEST DATE 6/27/2005

EA 0N190K ALT NA

REVISED DATE

CO/RTE/KP-KP[route 1 route 2] MON/68/L6.437-R29.128 & /0/0.000-0.000

RIGHT OF WAY COST ESTIMATE	CURRENT YR 2005	CONTINGENCY RATE	RIGHT OF WAY ESCALATION RATE	ESCALATED YEAR (Rounded) 2009
ACQUISITION	\$0	25.00%	5.00%	\$0
MITIGATION	\$0.00	25.00%	5.00%	\$0
STATE SHARE OF UTILITIES	\$26,250	25.00%	5.00%	\$32,000
RAP	\$0	25.00%	5.00%	\$0
CLEARANCE/DEMO	\$0	25.00%	5.00%	\$0
TITLE AND ESCROW	\$0	25.00%	5.00%	\$0
EXPERT WITNESS	\$0	25.00%	5.00%	\$0
SUPPORT HOURS				
TOTAL CURRENT VALUE *				\$32,000

ESTIMATED CONSTRUCTION CONTRACT WORK

\$0

R/W LEAD TIME/MONTH

12

PARCEL DATA			
# OF PCL TYPE X	0	# OF DUAL APPR X	0
# OF PCL TYPE A	0	# OF DUAL APPR A	0
# OF PCL TYPE B	0	# OF DUAL APPR B	0
# OF PCL TYPE C	0	# OF DUAL APPR C	0
# OF PCL TYPE D	0	# OF DUAL APPR D	0
# OF MITIGATION	0		
TOTALS	0	TOTALS	0
# OF EXCESS PARCEL 0			

UTILITIES	
U4-1	0
U4-2	0
U4-3	0
U4-4	0
U5-7	6
U5-8	0
U5-9	0

RR INVOLVEMENT	
ARE RAILROAD FACILITIES OR RIGHTS OF WAY	NO
CONST/MAINT AGREEMENT	NO
SERVICE CONTRACT	NO
RIGHT OF ENTRY	NO
CLAUSES	NO

MISC R/W WORK	
# OF RAP DISPLACEMENT	0
# OF CLEARANCE/DEMO	0
# OF CONST PERMITS	0
# OF CONDEMNATION	0

IF R/W COST ESTIMATE FIELDS ARE BLANK, TOTAL CURRENT VALUE = \$0

ATTACHMENT F-2

ARE UTILITIES OR OTHER RIGHTS OF WAY AFFECTED

RAILROAD LEADTIME REQUIRED

PARCEL AREA

UNIT:

TOTAL R/W TAKE	0
TOTAL EXCESS AREA	0
TOTAL MITIGATION AREA	0

TOTAL R/W FEE	\$0
TOTAL EXCESS COST	\$0

PROVIDE GENERAL DESCRIPTION OF R/W AND EXCESS LANDS REQUIRED (ZONING, USE, MAJOR IMPROVEMENTS, CRITICAL OR SENSITIVE PARCELS, ETC.):

IS THERE A SIGNIFICANT EFFECT ON ASSESSED VALUATION?

WERE ANY PREVIOUSLY UNIDENTIFIED SITES WITH HAZARDOUS WASTE OR MATERIAL FOUND

ARE RAP DISPLACEMENTS REQUIRED

OF SINGLE FAMILY # OF MULTI FAMILY # OF BUSINESS/NONPROFIT # OF FARMS

SUFFICIENT REPLACEMENT HOUSING WILL BE AVAILABLE WITHOUT LAST RESORT HOUSING

RE MATERIAL BORROW OR DISPOSAL SITES REQUIRED

RE THERE POTENTIAL RELINQUISHMENTS OR ABANDONMENTS?

ARE THERE ANY EXISTING OR POTENTIAL AIRSPACE SITES

ARE ENVIRONMENTAL MITIGATION PARCELS REQUIRED

DATA FOR EVALUATION PROVIDED BY

ESTIMATOR **NOT REQUIRED**

RAILROAD LIAISON AGENT SALLY A. HOPKINS 7/20/2005

UTILITY RELOCATION COORDINATOR PAMELA G. DEAN 7/19/2005

I have personally reviewed this Right of Way Sheet and all supporting information. I find this Data Sheet complete and current, subject to the limiting conditions set forth.


JOHN W. MADDUX
Field Office Chief, Right of Way

DA ENTERED PMC 7/21/2005
BY JOHN B BURKE



Preliminary Environmental Analysis Report

Project Information

District 05 County MON Route 68 Kilometer Post (Post Mile) (L4.0/R18.1)

EA 05-0N190K

Project Title: TMS Elements Along Route 68 in Monterey County

Project Manager: Doug Hessing Phone # 805-549-3788

Project Engineer: Steven Milton Phone # 559-230-3102

Environmental Branch Chief: Larry Newland, AICP Phone # 805-542-4603

Environmental Planner Generalist: Don Morehouse Phone # 805-549-3046

Project Description

The traffic management system (TMS) project located in Monterey County proposes to install TMS elements along Route 68. The TMS elements include vehicle detection stations (VDS), main line detection stations (MDS), closed circuit television (CCTV) cameras, extinguishable message signs (EMS), highway advisory radio (HAR), vehicle detection loops (VDL) as well as all related equipment. To the maximum extent practical, existing poles and electrical sources will be used. Trenching will be necessary to connect the TMS elements to the electrical sources.

Anticipated Environmental Approval

- | <u>CEQA</u> | <u>NEPA</u> |
|---|---|
| <input checked="" type="checkbox"/> Categorical/Statutory Exemption | <input checked="" type="checkbox"/> Categorical Exclusion |
| <input type="checkbox"/> Negative Declaration / focused ND | <input type="checkbox"/> Finding of No Significant Impact |
| <input type="checkbox"/> Environmental Impact Report | <input type="checkbox"/> Environmental Impact Statement |

The anticipated environmental document for the proposed project is a Categorical Exemption/Categorical Exclusion. The Federal Highway Administration and the California Department of Transportation would act as lead agencies in the preparation of a joint CEQA/NEPA (California Environmental Quality Act/National Environmental Policy Act) environmental document. 12 months will be used to prepare the environmental document.

Special Considerations

Plant surveys would be conducted over a five-month period from March through July.

Anticipated Project Mitigation (for standard PSR only)

Any impact to rare plants, oaks, riparian, or visual resources would require replacement planting as well as coloring of project equipment and hardware.

Biological Resources estimated cost is up to \$20,000.

Cultural Resources estimated cost is up to \$0.00.

Visual Resources estimated cost is up to \$70,000.

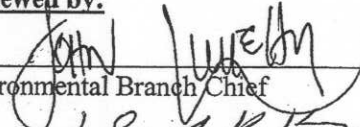
Hazardous Material cost is up to \$0.00.

Total estimated cost is up to \$90,000.

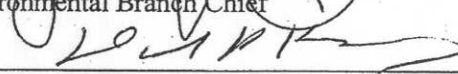
Disclaimer

Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in this report. The estimates and conclusions provided are approximate and are based on cursory analysis of probable effects. This report is to provide a preliminary level of environmental analysis to supplement the Project Study Report. Changes in project scope, alternatives, or environmental laws will require a re-evaluation of this report.

Reviewed by:



Environmental Branch Chief



Project Manager

Date: 8/31/05

Date: 8/31/05

Environmental Technical Reports or Studies Required

	Study	Document	N/A
Community Impact Study	<input type="checkbox"/>	<input type="checkbox"/>	✓
Farmland	<input type="checkbox"/>	<input type="checkbox"/>	✓
Section 4(f) Evaluation	<input type="checkbox"/>	<input type="checkbox"/>	✓
Visual Resources	✓	<input type="checkbox"/>	<input type="checkbox"/>
Water Quality	✓	<input type="checkbox"/>	<input type="checkbox"/>
Floodplain Evaluation	<input type="checkbox"/>	<input type="checkbox"/>	✓
Noise Study	✓	<input type="checkbox"/>	<input type="checkbox"/>
Air Quality Study	✓	<input type="checkbox"/>	<input type="checkbox"/>
Paleontology	✓	<input type="checkbox"/>	<input type="checkbox"/>
Wild and Scenic River Consistency	<input type="checkbox"/>	<input type="checkbox"/>	✓
Cumulative Impacts	✓	<input type="checkbox"/>	<input type="checkbox"/>
Cultural			
ASR	✓	<input type="checkbox"/>	<input type="checkbox"/>
HSR	<input type="checkbox"/>	<input type="checkbox"/>	✓
HASR	<input type="checkbox"/>	<input type="checkbox"/>	✓
HPSR	<input type="checkbox"/>	<input type="checkbox"/>	✓
Section 106 / SHPO (Waiting)	<input type="checkbox"/>	<input type="checkbox"/>	✓
Native American Coordination	<input type="checkbox"/>	<input type="checkbox"/>	✓
Other			
Finding of Effect _____	<input type="checkbox"/>	<input type="checkbox"/>	✓
Data Recovery Plan _____	<input type="checkbox"/>	<input type="checkbox"/>	✓
Hazardous Waste			
ISA (Additional)	<input type="checkbox"/>	<input type="checkbox"/>	✓
PSI	<input type="checkbox"/>	<input type="checkbox"/>	✓
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biological			
Endangered Species (Federal)	<input type="checkbox"/>	<input type="checkbox"/>	✓
Endangered Species (State)	<input type="checkbox"/>	<input type="checkbox"/>	✓
Species of Concern (CNPS, USFS, BLM, S, F)	✓	<input type="checkbox"/>	<input type="checkbox"/>
Biological Assessment (USFWS, NMFS, State)	<input type="checkbox"/>	<input type="checkbox"/>	✓
Wetlands	✓	<input type="checkbox"/>	<input type="checkbox"/>
Invasive Species	<input type="checkbox"/>	<input type="checkbox"/>	✓
Natural Environment Study	<input type="checkbox"/>	<input type="checkbox"/>	✓
NEPA 404 Coordination	<input type="checkbox"/>	<input type="checkbox"/>	✓
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Permits			
401 Permit Coordination	✓	<input type="checkbox"/>	<input type="checkbox"/>

404 Permit Coordination	✓	□	□
1602 Permit Coordination	✓	□	□
City/County Coastal Permit Coordination	□	□	✓
State Coastal Permit Coordination	□	□	✓
NPDES Coordination	□	□	✓
US Coast Guard (Section 10)	□	□	✓

Socio-economic and Community Effects

The project is not expected to have any effects on the local community or the economy.

Farmlands.

N/A

Visual Effects

There are no scenic resources affected by this project, however, continuing development along this State Scenic Highway corridor may at some point have an adverse cumulative affect on the rural character of the route. Visual "clutter" caused by more poles and equipment and vegetation removal due to trenching may contribute to that visual change. A visual impact assessment (VIA) will take place.

Water Quality

A water quality scoping of the above referenced project was conducted July 13, 2005. This project is located within Hydrologic Unit 309.10 and 309.50 between the cities of Sand City and Salinas in Monterey County. Based on the information provided in the request for environmental scoping, it has been determined that there would be no long-term impacts on the water quality within or adjacent to the project area if water quality issues are addressed during planning and design. Any potential impacts must be addressed, eliminated or minimized to the maximum extent practicable (MEP) during the design and construction by incorporating the appropriate permanent and temporary Best Management Practices (BMPs) into the project. In the construction phase, the contractor shall exercise every reasonable precaution, as stated in the Caltrans Standard Specifications Section 7-1.01G, to eliminate potential impacts to water quality while implementing appropriate BMPs.

Floodplain

N/A

Air Quality

Certain types of projects do not require a conformity determination because they do not contribute to a degradation of air quality. Since the project would not lead to a violation of existing air quality standards, it is exempt from air quality conformity determination according to 40 CFR (Code of Federal Regulations) 93.126. Work on this project is expected to be complete within 6 months of the start of construction. Since the project will not affect the highway alignment, traffic speeds or traffic volumes, local air quality will be the same before and after completion of the project. No further air quality analysis for long term emissions is required.

Noise

Most of the interchanges are in commercial or residential areas. No night construction is expected, however there is a possibility that construction activities can cause noise impacts at residences and businesses near the highway. The project will not add capacity to or alter the existing alignment of the highway. Highway traffic noise will be the same with or without the project. Night work is not anticipated on this project, therefore the normal nighttime sleep activities of residents would not be disturbed. In addition, Work at each location is expected to be short in duration, no more than two weeks at each location.

Wild and Scenic River

N/A

Cultural Resources

A field reconnaissance was not conducted for preparation of this PEAR. For areas of proposed work within State ROW, a determination of potential impacts must be evaluated when the exact configuration of each project location is developed. Potential monitoring of ground disturbance will be determined after a field reconnaissance is completed. Original ground within State ROW has been altered during past episodes of construction and maintenance. The existence of buried archaeological sites without recognizable surface expression (vertical Area of Potential Effect) within these project locations are possible but unlikely except where indicated previously.

In Summary, four project locations (6, 7, 12 & 20) have potential archaeological or architectural concerns in proximity to proposed construction. While it is not anticipated that construction impacts within State ROW will necessarily affect these cultural sites; evaluation of ground disturbances will need final review when project design impacts can be reasonably determined.

Hazardous Waste/Materials

Due to the nature of the TMS project and the limited amount of excavation required it is unlikely that hazardous waste will be encountered. The process of installing a traffic management system has very little potential for encountering hazardous waste. Therefore, there are no expected hazardous waste impacts associated with this project.

Paleontological Resources

All of the work locations appear to be underlain by Quaternary alluvium that has a low potential to contain sensitive paleontological resources. The highway is constructed on a structural section of about 2 feet of base, sub base, and often includes imported borrow materials. Excavations for the electrical components are generally shallow. Therefore, it appears there is a low potential to disturb sensitive paleontological resources with this work. However, further investigation of the possibility to disturb sensitive paleontological resources will be conducted at the environmental document stage.

Biological Resources

This project could potentially impact rare plants, oak trees, or riparian vegetation. Plant surveys will be required within a five-month period (March - July).

Hazardous Waste Review by Jim Tkach	Date: 7/12/05
Paleontology, Air and Noise Review by Wayne W. Mills	Date: 7/19/05
Biological Review by Mike Lisitza	Date: 7/13/05
Cultural Review by Jack Hunter	Date: 7/12/05
Visual Review by Robert Carr	Date: 7/18/05
Water Review by Isaac Leyva	Date: 7/13/05

Central Region Environmental Division
Mitigation Cost Compliance Estimate Form

☒ PEAR ☐ Draft ED ☐ Final ED

DRAFT

Dist.-Co.-Rte.-PM: 05 - MON - SR 68 - L4.0/R18.2

EA: 05-0N190K

Project Name: TMS Elements Along Route 68 in Monterey County

Project Description:

The traffic management system (TMS) project located in Monterey County proposes to install TMS elements along Route 68. The TMS elements include vehicle detection stations (VDS), main line detection stations (MDS), closed circuit television (CCTV) cameras, extinguishable message signs (EMS), highway advisory radio (HAR), vehicle detection loops (VDL) as well as all related equipment. To the maximum extent practical, existing poles and electrical sources will be used. Trenching will be necessary to connect the TMS elements to the electrical sources.

Environmental Manager: Larry Newland Phone Number: 805-542-4603
Project Manager: Doug Hessing Phone Number: 805-549-3788
Date: 7-12-05

Numbers are in thousands

	Right of Way (Prior to Construction) (050)	During and Post Construction (042)
Archaeological	Not Anticipated	Not Anticipated
Biological	Not Anticipated	20
Historical	Not Anticipated	Not Anticipated
Paleontology	Not Anticipated	Not Anticipated
Hazardous Waste Remediation	Not Anticipated	Not Anticipated
Landscape	Not Anticipated	70
Noise	Not Anticipated	Not Anticipated
Total Permit Cost*	0	Not Anticipated
DFG Document Review Fee	Not Anticipated	Not Anticipated
Other	Not Anticipated	Not Anticipated
Total	0	90

* Includes 1602 and 401 permit fees

- This form is completed as part of the PEAR for all candidate projects, at completion of the Draft Environmental Document, and at the completion of the Final Environmental Document
- This form is to be completed for all SHOPP & STIP projects (even those w/o Mitigation)
- This form is to be completed for all Minor A & B projects with mitigation requirements
- Costs are to include all costs to complete the commitment including: capitol outlay (non-staffing support costs); cost of right-of-way or easements; long-term monitoring and reporting, and; any follow-up maintenance
- Attach detailed descriptions of line items included in estimates

ATTACHMENT G-7

Attach completed ROW data sheets when forwarded to ROW.

PA & ED Date	RTL Date	Months Between	Months Required
TBD	TBD	TBD	TBD

Right of Way Data Sheet Input Information

3.	Environmental mitigation parcels:	REQUIRED <input type="checkbox"/>	NOT REQUIRED <input checked="" type="checkbox"/>
	_____Acres \$ _____	Additional funding \$ _____	Permit Fees
	(Mitigation required)		

**** This information is to be obtained from the Environmental Branch prior to submittal to the Right of Way Field Office Chief**

Short Form – Storm Water Data Report

Dist-County-Route: 05-MON-68

Post Mile Limits: L4.0/R18.1

Project Type: SHOPP (010)

EA: 05-0N190K

RU: Branch H, Design II, 227

Project Identification: HB4N

Phases: ☒ PID

☐ PA/ED

☐ PS&E

Regional Water Quality Control Board(s): 3 – Central Coast

1. Is the project required to consider incorporating Treatment BMPs: No
2. Does the project disturb more than 0.1 hectares of soil: No
3. Is the project part of a Common Plan of Development: No
4. Does the project potentially create water quality impacts: No
5. Does the project require a notification of ADL reuse: No

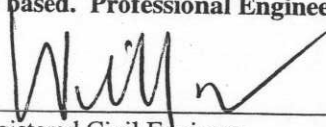
If the answer to any of the preceding questions is "Yes", prepare a Long Form - Storm Water Data Report.

Estimated Construction Start Date: 06/09

Construction Completion Date: 01/11

Separate Dewatering Permit (if yes, permit number): N/A

This Short Form - Storm Water Data Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Professional Engineer stamp required at PS&E.


Registered Civil Engineer

8/17/05
Date

I have reviewed the storm water quality design issues contained in the Short Form - Storm Water Data Report and find the data to be complete, current, and accurate:

STAMP
[required for PS&E only]


District/Regional Storm Water Coordinator or Designee

8/19/05
Date

ATTACHMENT H

DISTRICT 5

Preliminary TRAFFIC MANAGEMENT PLAN DATA SHEET/CHECKLIST

District / EA: 05-0N190K
Project Engineer: Willard Tullock
Date Prepared: 8/10/2005

Co.-Rte-PM: MON-68-L4.0/R18.1
Description: TMS Elements
Working Days: Unknown

Check each box and reference your attachments to the item(s) number(s) shown on the list.

1.0 Public Information

- 1.1 Public Awareness Campaign
- 1.2 Other Strategies

2.0 Motorist Information Strategies

- 2.1 Changeable Message Signs - Portable
- 2.2 Construction Area Signs
- 2.3 Highway Advisory Radio (fixed and mobile)
- 2.4 Planned Lane Closure Web Site
- 2.5 Caltrans Highway Information Network (CHIN)

3.0 Incident Management

- 3.1 COZEAP
- 3.2 Freeway Service Patrol

4.0 Traffic Management Strategies

- 4.1 Lane/Ramp Closures Charts
- 4.2 Total Facility Closure
- 4.3 Coordination with adjacent construction
- 4.4 Contingency Plan
 - 4.4.1 Material/Equipment Standby
 - 4.4.2 Emergency Detour Plan
 - 4.4.3 Emergency Notification Plan
- 4.5 SSP 12-220 and Others
- 4.6 Other Strategies:

Maximum delay 15 min/Max closure length 1 mile.

Monitor queue length and delay during closures

Include \$200/day in Maintain Traffic

Provide advance notification signs 7 working days before construction begins.

5.0 Anticipated Delays

- 5.1 Lane Closure Review Committee (for anticipated delays over 30 minutes)
- 5.2 Planned freeway closures

- 5.3 Minimal delay anticipated - no further action required

6.0 Placement of CMS

Shayne Sandeman
District 5 TMP Coordinator

Required	Recommended	Not required
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COMMENTS

x			Contact PIO for cost and content
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x			One CMS unit per lane/direction/ramp closure @ \$250/ unit per day
x			
		x	
x			Construction to provide information to TMC
		x	Construction to provide information to TMC

x			Include \$55/hr days; \$110/hr nights
		x	

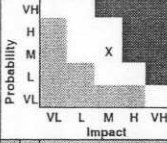
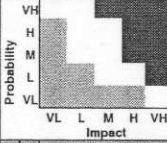
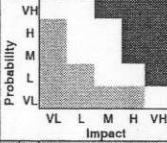
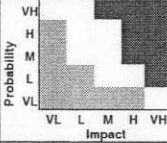
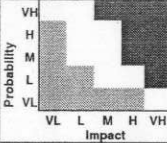
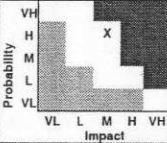
x			To be provided @ PS&E, anticipate night work
		x	
x			
x			Standard SSP
x			Construction/Contractor to provide
x			Construction/Contractor to provide
x			Construction/Contractor to provide
x			
x			
x			
x			Implement contingency plan for lane closure pick-up if criteria exceeded
x			066070 for supplemental expenses.
x			

		x	
		x	

☒ yes ☐ no If no, explain additional measures on attached sheet.

x			At direction of RE
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Priority	PROJECT RISK MANAGEMENT PLAN																	
	Identification						Qualitative Analysis				OPTIONAL Analysis Quantitative			Response Strategy		Monitoring and Control		
	Status	ID #	Date Identified	Functional Assignment	Threat/Opportunity Event	Risk Trigger	Type	Probability	Impact	Risk Matrix	Probability (%)	Impact (\$ or days)	Effect (\$ or days)	Strategy	Response Actions including advantages and disadvantages	Responsibility (Task Manager)	Last date changes made to risk and Comments	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14) =(12)x(13)	(15)	(16)	(17)	(18)
	Active		7/5/05 PID	Environmental	May have ESAs at spot locations.	Environmental Identifies ESA during PA&ED Phase	Quality	Moderate	Moderate					Avoidance	Early Identification of any Environmentally Sensitive Areas and look for areas to install project features that do not impact ESA.	John Luchetta	8-8-05 Environmental to start surveys as soon as project is programmed and identify any ESAs	
	Active		7/5/05 PID	Design, Electrical Design	Communication and electrical service may not be available in certain areas.	Design and or Electrical Design identifies lack of needed utilities nearby	Cost Schedule	Moderate	Moderate					Acceptance	Identify existence of risk early and bring to the attention of the PDT and Project sponsor to discuss.	Steven Milton Xavier Alfaro Anthony Lopez	8/8/05	
	Active		7/5/05 PID	Design	May have interference issues between proposed trench lines, etc. and existing above and below ground objects such as trees, walls, creeks, high risk utilities, irrigation facilities, etc. Early Identification	field surveys indicate obstructions	Cost Scope Schedule	Moderate	Moderate					Acceptance	Identify probability of risk early and decide on action early.	Steven Milton / Willard Tullock	8/8/05	
	Active		7/5/05 PID	TMP/ Coordinator	May not be able to close some of the ramps for the proposed work due to traffic issues, etc.	Early Identification by TMP	Scope	Low	Moderate					Avoidance Acceptance Mitigation	Discuss with PDT to determine appropriate strategies	Shayne Sandeman / Jacques Van Zeventer	8/8/05	
	Active		7/5/05	Design / Electrical	May need additional right of way and/or easements for the proposed service connections, etc.	Design to identify R/W requirements	Cost Scope Schedule	Moderate	Moderate					Acceptance	Early Identification of unanticipated R/W requirements. If found adjust schedule as necessary.	Steven Milton/ Willard Tullock / Xavier Alfaro / Anthony Lopez	8/8/05	
	Active		7/5/05	Planning / Environmental / Landscape Architecture	Coastal Permits, Aesthetic Issues and Community Acceptance	Public and Local Officials express concern during meetings early in the PA&ED phase.	Cost Scope Schedule	Moderate	Moderate					Mitigation	Work with the community to determine appropriate mitigation.			
	Active			Project Manager	Permit Costs not included in R/W Data Sheet	Identification that cost have not ben included	Cost	High	Moderate					Mitigation	Get required information and update cost prior to programming.	John Luchetta	8/8/2005 Fact Sheet and project report to be adjusted per Permit Requirments in the PEAR.	
	Active			Project Management	Due to extremely limited time (roughly 2 months) to develop PID, cost scope and schedule changes are more likely than if the PID development was done on a standard cycle schedule.	Information either received from functional units too late to incorporate into the Final PID or information received not as accurate do to limited time to develop estimates.	Cost Scope Schedule	High	Low					Acceptance	Project could be modified prior to programming but after formal approval.	Project Manager	In late May, 2005, priorities for the SHOPP program were changed to broaden the types of projects potentially available for programming in the 2006 SHOPP cycle. This change, plus the addition of potential funding in certain programs, resulted in the need to quickly update or initiate candidate projects. Due to the fact that only approximately two months have been available to develop this project, various risks have been taken by the Project Development Team and the District in presenting this project for programming.	
	Active		8/11/05 PID	Environmental Hazardous Waist	ADL Issues add cost and time to the project schedule	Haz. Waist informs team of positive test results or preexisting documentation of significant levels of ADL present in the work area.	Schedule Cost	Moderate	Moderate					Acceptance	discuss strategies at kick off meeting	James Tkach	Possible ADL issues are 0N220K, 0N250K and 0N260K	
	Dormant		8/9/05	Design, DRS Support (aka As-Built)	At Close-out, As-built plans and Project History Files may not be complete in a "timely" manner.	Dependent on 1) the quality of redlines submitted by Construction Staff, 2) insufficient data of past as-built information for accurate estimates.	Schedule	Low	Very Low					Mitigation	Request additional staff			

Priority	PROJECT RISK MANAGEMENT PLAN																	
	Identification					Qualitative Analysis				OPTIONAL Analysis Quantitative			Response Strategy		Monitoring and Control			
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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14) = (12)x(13)	(15)	(16)	(17)	(18)
	Active		8/16/05 PID	R/W	R/W doesn't know where the R/W lines are at all of the locations. This may not give us sufficient room to place poles and cabinets		Cost	Moderate	Moderate		50%							
			8/16/05 PID		Mitigation for objects in the way of trench line is Directional Drill vs. Trenching													
			8/17/05 PID		Risk of pos loc request not received in a timely manner													
			8/17/05 PID		Risk of contractor unable to avoid 8" high pressure gas line or SBC fiber optic line.													
			8/17/05 PID		Env mitigation permit fees required and not estimated.													
			8/18/05 PID	Project Management	Insufficient funds programmed for project. Due to "rush" to route PSRs, insufficient time to analyze resources requested by functional units.		Cost	High	Moderate		60%							
										